

NUREG/BR-0007
Revision 6

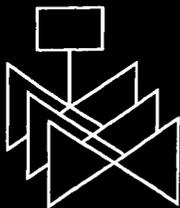
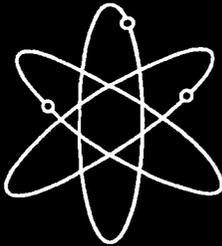
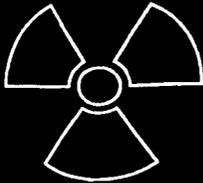
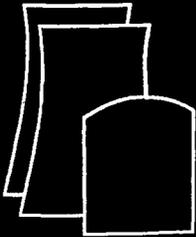
Instructions for the Preparation and Distribution of Material Status Reports

(DOE/NRC Forms 742 and 742C)

Effective Date: April 1, 2008

Draft Report for Comment

Issued by the
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Washington, DC 20555-0001



AVAILABILITY OF REFERENCE MATERIALS IN NRC PUBLICATIONS

NRC Reference Material

As of November 1999, you may electronically access NUREG-series publications and other NRC records at NRC's Public Electronic Reading Room at <http://www.nrc.gov/reading-rm.html>. Publicly released records include, to name a few, NUREG-series publications; *Federal Register* notices; applicant, licensee, and vendor documents and correspondence; NRC correspondence and internal memoranda; bulletins and information notices; inspection and investigative reports; licensee event reports; and Commission papers and their attachments.

NRC publications in the NUREG series, NRC regulations, and *Title 10, Energy*, in the Code of *Federal Regulations* may also be purchased from one of these two sources.

1. The Superintendent of Documents
U.S. Government Printing Office
Mail Stop SSOP
Washington, DC 20402-0001
Internet: bookstore.gpo.gov
Telephone: 202-512-1800
Fax: 202-512-2250
2. The National Technical Information Service
Springfield, VA 22161-0002
www.ntis.gov
1-800-553-6847 or, locally, 703-605-6000

A single copy of each NRC draft report for comment is available free, to the extent of supply, upon written request as follows:

Address: U.S. Nuclear Regulatory Commission
Office of Administration
Mail, Distribution and Messenger Team
Washington, DC 20555-0001

E-mail: DISTRIBUTION@nrc.gov
Facsimile: 301-415-2289

Some publications in the NUREG series that are posted at NRC's Web site address <http://www.nrc.gov/reading-rm/doc-collections/nuregs> are updated periodically and may differ from the last printed version. Although references to material found on a Web site bear the date the material was accessed, the material available on the date cited may subsequently be removed from the site.

Non-NRC Reference Material

Documents available from public and special technical libraries include all open literature items, such as books, journal articles, and transactions, *Federal Register* notices, Federal and State legislation, and congressional reports. Such documents as theses, dissertations, foreign reports and translations, and non-NRC conference proceedings may be purchased from their sponsoring organization.

Copies of industry codes and standards used in a substantive manner in the NRC regulatory process are maintained at—

The NRC Technical Library
Two White Flint North
11545 Rockville Pike
Rockville, MD 20852-2738

These standards are available in the library for reference use by the public. Codes and standards are usually copyrighted and may be purchased from the originating organization or, if they are American National Standards, from—

American National Standards Institute
11 West 42nd Street
New York, NY 10036-8002
www.ansi.org
212-642-4900

Legally binding regulatory requirements are stated only in laws; NRC regulations; licenses, including technical specifications; or orders, not in NUREG-series publications. The views expressed in contractor-prepared publications in this series are not necessarily those of the NRC.

The NUREG series comprises (1) technical and administrative reports and books prepared by the staff (NUREG-XXXX) or agency contractors (NUREG/CR-XXXX), (2) proceedings of conferences (NUREG/CP-XXXX), (3) reports resulting from international agreements (NUREG/IA-XXXX), (4) brochures (NUREG/BR-XXXX), and (5) compilations of legal decisions and orders of the Commission and Atomic and Safety Licensing Boards and of Directors' decisions under Section 2.206 of NRC's regulations (NUREG-0750).

NUREG/BR-0007
Revision 6

Instructions for the Preparation and Distribution of Material Status Reports

(DOE/NRC Forms 742 and 742C)

Effective Date: April 1, 2008

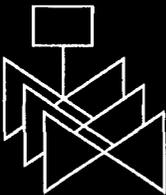
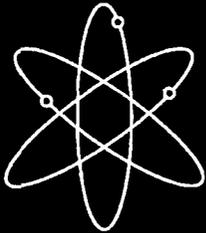
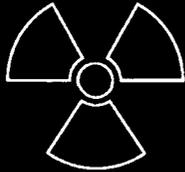
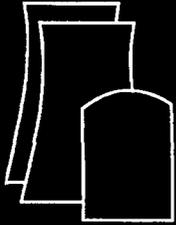
Draft Report for Comment

Manuscript Completed: February 2007
Date Published: March 2007

Prepared by
Chris Graves, NRC

B.G. Horn, NRC Project Manager

Issued by the
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Washington, DC 20555-0001



COMMENTS ON DRAFT REPORT

Any interested party may submit comments on this report for consideration by the NRC staff. Comments may be accompanied by additional relevant information or supporting data. Please specify the report number NUREG/BR-0007 Rev 6, page number and line number in your comments. Comments should address the contents of the guidance presented in the NUREGs but not the regulations associated with it and sent by April 23, 2007 to the following address:

Chief, Rules Review and Directives Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, DC 20555-0001

For any questions about the material in this report, please contact:

Brian Horn
Phone: 301-415-8128
E-mail: BGH1@nrc.gov

Chris Graves
Phone: 301-415-6525
E-mail: DCG@nrc.gov

1
2
3 **ABSTRACT**

4 NRC regulations require each licensee who is authorized to possess special nuclear material
5 (SNM) or obligated source material to prepare and submit, in computer-readable format,
6 reports concerning SNM received, produced, possessed, transferred, consumed, disposed of,
7 or lost. This NUREG contains the reporting instructions for licensees to follow in making these
8 reports.
9

10 **Paperwork Reduction Act Statement**

11
12 The information collections contained in this NUREG are covered by DOE/NRC Forms 742 and
13 742C, which were approved by the Office of Management and Budget, approval numbers
14 3150-0004 and 3150-0058.
15

16 **Public Protection Notification**

17
18 If a means used to impose an information collection does not display a currently valid OMB
19 control number, the NRC may not conduct or sponsor, and a person is not required to respond
20 to, the information collection.
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

CONTENTS

1		
2		
3	Abstract	iii
4		
5	Abbreviations	vii
6		
7	1 Introduction	1
8		
9	1.1 Material Status Reports	1
10		
11	1.2 Regulatory Authority	2
12		
13	1.3 Preparation and Submittal of DOE/NRC Form 742	
14	and 742C in Computer-Readable Format	3
15		
16	1.4 Documentation and Distribution	4
17		
18	1.5 Reconciliation	4
19		
20	2 Instructions for Completing DOE/NRC Form 742,	
21	Material Balance Report"	5
22		
23	2.1 Section A, "Material Accountability"	6
24		
25	2.2 Section B, "Foreign Obligations"	12
26		
27	2.3 Section C, "Certification"	12
28		
29	3 Instructions for Completing DOE/NRC Form 742C,	
30	"Physical Inventory Listing"	12
31		
32	3.1 Licensees Reporting Under 10 CFR 74.13 and 150.17	12
33		
34	3.2 Licensees Reporting Under 10 CFR Part 75	16
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		

Appendices

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

A	Composition Code Instructions	A-1
B	DOE/NRC Form 742, "Material Balance Report," (Blank) and DOE/NRC Form 742C, "Physical Inventory Listing" (Blank)	B-1
C	Obligation Codes	C-1
D	Glossary	D-1
E	IAEA Inventory Change Type Codes	E-1

ABBREVIATIONS

1		
2		
3	CFR	Code of Federal Regulations
4		
5	DOD	Department of Defense
6	DOE	Department of Energy
7		
8	FA	Facility Attachment
9		
10	IAEA	International Atomic Energy Agency
11	ICT	inventory change type
12	ID	inventory difference
13		
14	KMP	key measurement point
15		
16	MBA	material balance area
17	MMDDYYYY	month, day, year
18		
19	NMMSS	Nuclear Materials Management and Safeguards System
20	NOL	normal operating losses
21	NRC	Nuclear Regulatory Commission
22	NSI	National Security Information
23		
24	PIL	Physical Inventory List
25	Pu	plutonium
26		
27	RIS	reporting identification symbol
28		
29	SAMS	Safeguards Management Software
30	SNM	special nuclear material
31		
32	TFA	Transitional Facility Attachment
33		
34	U	uranium
35	U.S. GOVT	United States Government
36		
37	WT%	weight percent (of isotope)
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		

1 **U.S. NUCLEAR REGULATORY COMMISSION INSTRUCTIONS FOR THE**
2 **PREPARATION AND DISTRIBUTION OF MATERIAL STATUS REPORTS**

3
4 **DOE/NRC FORMS 742, "MATERIAL BALANCE REPORT," AND 742C,**
5 **"PHYSICAL INVENTORY LISTING"**
6

7 **1 INTRODUCTION**
8

9 The U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE)
10 jointly use a Nuclear Materials Management and Safeguards System (NMMSS). This system is
11 the U.S. national database used by DOE and NRC for tracking certain nuclear material.
12

13 Common reporting forms and formats are used to minimize the reporting burden on licensees¹
14 required to provide nuclear material data to one or both agencies in accordance with current
15 regulations or contractual obligations. In this manner, licensees can file one report to meet the
16 reporting requirements of both NRC and DOE. Compliance with specific reporting requirements
17 is monitored by the agency that requires the specific data. NRC regulations require that the
18 reports be submitted in computer-readable form. A licensee may use any blank blocks on the
19 paper DOE/NRC forms for other business purposes.
20

21 DOE requires all NRC licensees to report to NMMSS all receipts, transfers, and inventories of
22 U.S. GOVT-owned, loaned, or leased material in their possession. A DOE/NRC Form 742,
23 "Material Balance Report," and a DOE/NRC Form 742C, "Physical Inventory Listing," must be
24 filed to report quantities of 0.5 or greater of the reporting unit specified as specified in DOE
25 Orders Series 470 (DOE Order 470.4 "Safeguards and Security Program" and DOE M 470.4-6
26 "Nuclear Material Control and Accountability").
27

28 **1.1 Material Status Reports**
29

30 The DOE/NRC Form 742 "Material Balance Report" and 742C "Physical Inventory Listing" are
31 the means for submitting material balance and inventory data to the NMMSS. The information
32 must be completed in accordance with the instructions in this NUREG and must be submitted in
33 computer-readable format. Instructions for creating the computer-readable submittal are found
34 in NMMSS Report D-24, "Personal Computer Data Input for NRC Licensees."
35

36 The DOE/NRC Form 742 is used to report a summary of activity for a specified material within a
37 time period. The report conveys activities such as the beginning balance, shipments and
38 receipts involving other facilities, how much material has decayed, how material has been
39 down-blended, and the ending balance. This information is useful to validate a facility's ending
40 inventory.
41

42 The DOE/NRC Form 742C is used to report a facility's inventory as of a specified date. The
43 report lists, for each material type category, the amount of material in the facility's possession
44 or in-transit to the facility at the time of the inventory process. The form can show each

¹The term "licensee" here denotes an NRC or Agreement State licensee or an NRC certificate holder.

1 individual batch or summarize totals of "like" batches. The totals for each material type
2 category must match the ending balance in the corresponding material balance report.
3

4 The NMMSS relies heavily on the quality of the data reported by the facilities involved in nuclear
5 activities. The data submitted to the NMMSS are subject to evaluation according to the
6 restrictions placed on nuclear activity by the policies of various governing agencies of the
7 United States. The NMMSS accepts the data after being verified as acceptable within the
8 restrictions of the system.
9

10 **1.2 Regulatory Authority**

11
12 NRC regulations require each licensee who possessed during a reporting period special nuclear
13 material (SNM) in a quantity totaling 1 gram or more of contained U^{235} , U^{233} , or plutonium, to
14 prepare and submit in computer-readable format reports concerning SNM received, produced,
15 possessed, transferred, consumed, disposed of, or lost. The reporting periods for facilities
16 subject to 10 CFR Part 74.51 are October 1 to March 31 and April 1 to September 30 of each
17 year. These reports must be filed within 30 days of the end of the period covered by the report,
18 unless an alternate date is authorized by the NRC. Reports for facilities subject to Parts
19 74.19(c), 74.31(c)(5), 74.33(c)(4), or 74.33(c)(6) are to be made and filed within 60 days of the
20 start of the physical inventory taking, unless an alternate date is authorized by the NRC. If
21 licensees are reporting pursuant to 10 CFR Part 75, reports are to be dispatched as soon as
22 possible but no later than 30 days from the start of the physical inventory taken as part of the
23 licensee's MC&A procedures. All other licensees, including those subject to Part 150.17, shall
24 submit a report no later than March 31 of each year.
25

26 A separate DOE/NRC Form 742 and 742C must be completed for each material type (E1, E2,
27 E3, E4, 50, 70, 83, 89) of SNM for which a reportable quantity is possessed or a reportable
28 inventory change has occurred during the period. Reportable quantities, for SNM, are defined
29 as 1 gram or more, for source material the reportable quantity is 1 kilogram or more. For
30 reporting purposes, quantities of 0.5 or more are to be rounded up to the next whole unit.
31

32 Also, each Federal or State licensee, who possessed during a reporting period 1 kilogram or
33 more of foreign obligated source material (material type 10, 81, and 88) must submit a
34 statement of foreign obligated source material inventory. A DOE/NRC Form 742 may be used.
35 The reporting period is October 1 to September 30 of each year (unless an alternate period is
36 authorized by the NRC). The reports must be filed as specified in Facility Attachments (FAs) if
37 the licensee is reporting pursuant to the 10 CFR Part 75 for all source material and SNM.
38

39 In addition each licensee who possesses, or had possessed in the previous reporting period,
40 one kilogram or more of uranium or thorium source material pursuant to the operation of
41 enrichment services, downblending uranium that has an initial enrichment of the U^{235} isotope of
42 10 percent or more, or in the fabrication of mixed-oxide fuels shall complete and submit
43 DOE/NRC Form 742 and 742C's concerning all source material that the licensee has received,
44 produced, possessed, transferred, consumed, disposed of, or lost. These reports are to be
45 submitted within 30 days of September 30 of each year or with the licensee's annual material
46 balance reports required under Parts 72, 74, and 150.
47
48

1 SNM and source reports shall be submitted for each Reporting Identification Symbol (RIS)
2 account including all holding accounts.
3

4 Refer to the DOE Orders Series 470.4 "Safeguards and Security Program," and DOE M 470.4-
5 6 "Nuclear Material Control and Accounting" for U.S. GOVT-owned material holdings.
6

7 **1.3 Preparation and Submission of DOE/NRC FORM 742 and 742C in** 8 **Computer-Readable Format** 9

10 NMMSS Report D-24 provides instructions for preparing DOE/NRC Form 742 and 742C in
11 computer-readable format as required for submittal. The Safeguards Management Software
12 (SAMS) is a miniature version of the NMMSS. This software allows the user to import and
13 export data, make edit checks, generate various reports, and create material balance, inventory
14 data, and transaction data. It has the capability to export data into the required NMMSS
15 predefined computer-readable format outlined in the NMMSS Report D-24. The SAMS
16 program may be obtained from the NMMSS operator free of charge.
17

18 Proprietary information must be included in all reporting forms when necessary to provide an
19 adequate response. An application to withhold such information from public disclosure may be
20 made, and will be disposed of, in accordance with the provisions of 10 CFR 2.390. If any of this
21 information is of particular sensitivity, a request may be made that the information not be
22 physically transmitted to the International Atomic Energy Agency (IAEA). Such a request must
23 refer to, and conform with, 10 CFR 75.12.
24

25 There are several methods for submitting data to the NMMSS:

26 (1) Telephonic Transfers to the NMMSS 27 28

29 A licensee may submit the DOE/NRC Form 742 and 742C electronically by using a
30 modem. To establish an electronic connection with the NMMSS, licensees must contact
31 the NMMSS security officer to request establishment of a connection with the direct link.
32 If the facility is a valid facility for the type of link requested (classified or unclassified),
33 the security officer provides the requester with the appropriate forms to complete.
34

35 Upon receipt of the completed forms, the security officer creates a user ID and
36 password and establishes an account for the facility. The user ID and password are
37 then forwarded to the user facility along with a password acknowledgment form. The
38 licensee signs the acknowledgment form and returns it to the security officer, who then
39 activates the user ID and password.
40

41 (2) Data Submittals on computer media 42

43 DOE/NRC Form 742 and 742C should be submitted in computer-readable format unless
44 reporting per 10 CFR 40.64(b). NMMSS Report D-24 provides instructions on
45 packaging, data format requirements, acceptable media types, and mailing address for
46 submittal of data on computer media.
47
48

1 (3) New or Modified Methods of Transferring Electronic Data

2
3 New or modified methods of transferring electronic DOE/NRC Form 742 and 742C data
4 to NMMSS may be authorized by the NRC. Authorization to use additional methods for
5 the transfer of this data may be confirmed by contacting the NMMSS operator's program
6 administrator.
7

8 **1.4 Documentation and Distribution**

9
10 The completed DOE/NRC Form 742 and 742C must be submitted to the NMMSS operator.
11 Before submitting data, confirm the address of NMMSS and the method of providing data by
12 calling the NMMSS operator. Note that the specific documentation and distribution instructions
13 depend on whether the DOE/NRC Form 742 or 742C contains classified or unclassified
14 information.
15

16 Any DOE/NRC Form 742 or 742C which is classified must be documented and handled in
17 accordance with all pertinent security requirements. All other submissions that are not
18 classified are considered to be proprietary material control and accounting information and may
19 be requested to be withheld as defined by 10 CFR 2.390. Each person who is to receive a copy
20 of the report must be verified as a qualified recipient prior to distribution. Please confirm the
21 address prior to sending documents to NMMSS or other recipients. Also please formally
22 provide classification guidance to NMMSS after a decision to classify, declassify, or make any
23 change in previously submitted guidance. When submitting "Safeguards Information", a
24 Concise Note Form 740M must be submitted stating that the submission is "Safeguards
25 Information" and should be handled in accordance with 10 CFR 73.21.
26

27 Distribute the completed report as follows:

- 28
- 29 • Submit one copy of the completed report and all supporting sub-schedules and lists to
30 NMMSS. All RIS holders are encouraged to review their RIS information yearly and notify
31 NMMSS that the data is correct or make changes.
32
 - 33 • Retain one copy for your file.
34

35 **1.5 Reconciliation**

36
37 Every report period, the licensee shall perform a reconciliation of the data reported to NMMSS
38 compared to the projected balances developed by NMMSS. Generated balances are provided
39 in reports obtained from the NMMSS operator. This process shall be considered complete
40 when the licensee resolves any differences between the reported and the generated balances
41 including those listed for foreign obligated materials. The reconciliation should be completed
42 within 30 calendar days of when the licensee was notified of the discrepancy and include all
43 accounts held by the licensee including holding accounts.
44

45 Facilities should ensure that their DOE/NRC Form 742C weight totals equal their DOE/NRC
46 Form 742 weight totals for each material type. The DOE/NRC Form 742C totals should be an
47 arithmetic sum of the weights listed on the Batch Data lines of the DOE/NRC Form 742C.
48 Generally DOE/NRC Form 742 and 742C totals should be in agreement with values maintained

1 and used at the site. However, if reported DOE/NRC Form 742 and 742C values differ from
2 site maintained values due to such issues as rounding because of different units of
3 measurement/reporting, then the site should submit a concise note explaining the difference.
4

5 **2 INSTRUCTIONS FOR COMPLETING DOE/NRC FORM 742**

6
7 DOE/NRC Form 742, "Material Balance Report," should be completed in accordance with the
8 instructions in this NUREG and in NMMSS Report D-24, "Personal Computer Data Input for
9 NRC Licensees," as appropriate. NMMSS Report D-24 provides instructions and examples for
10 preparation of required electronic submittals to the NMMSS.

11
12 The following numbered instructions correspond to the numbered blocks and lines on
13 DOE/NRC Form 742 to be completed by licensees.

- 14
15 1. NAME AND ADDRESS - Leave blank.
16
17 2. LICENSE NUMBER(S) - Leave blank.
18
19 3. REPORTING IDENTIFICATION SYMBOL (RIS) - Enter the RIS which has been
20 assigned and under which the source or special nuclear material being reported is or
21 was held. Submit a separate report for each RIS and any holding account.
22
23 4. REPORT PERIOD - Enter the inclusive dates. The beginning date for the reporting
24 period must be the next consecutive date after the ending date of the previous report.
25
26 5. MATERIAL TYPE - Enter the appropriate material type code for the material being
27 reported, as follows:

28
29

<u>CODE</u>	<u>DESCRIPTION</u>
10	Depleted uranium (U)
E1	Uranium enriched greater than normal but less than 5%
E2	Uranium in enrichment of 5% or more but less than 20%
E3	Uranium in enrichment of 20% or more but less than 80%
E4	Uranium in enrichment of 80% or more
50	Plutonium (Pu)
70	U ²³³
81	Normal uranium
83 ²	Pu ²³⁸
88	Thorium
89	Uranium in cascade

30
31
32
33
34
35
36
37
38
39
40
41

42 Complete a separate DOE/NRC Form 742 for each SNM or source material type even in cases
43 where two or more types are combined.
44

²Report as Pu²³⁸ if the contained Pu²³⁸ is greater than 10% of total Pu by weight. Otherwise, report as plutonium.

1 When U²³⁵ and U²³³ are mixed, report the total element weight of the mixture in the element
2 weight column of both the U²³⁵ report and the U²³³ report, and reflect this fact in a concise note
3 (DOE/NRC Form 740M) for each report.
4

5 **2.1 Section A, "Material Accountability"**

6
7 PROCESS CODE -Enter processing code A, C, or D. The process codes C and D may be
8 used to modify report data for only the current processing period.
9

10 A Initial entry of data

11
12 C Replacement of data. Data may be replaced at any time prior to the close of the
13 processing period in which the initial entry was made.
14

15 D Deletion of data. Data may be deleted at any time prior to the close of the
16 processing period in which the initial entry was made.
17

18 Modification of reported material balance reports may be done for the current processing
19 periods. The Process codes to be used are "C" for replace and "D" for delete.

- 20 • Submitting a Form with RIS, report period, material type, and sequence number and
21 process code "C" will be the unique identifier for the line to be replaced.
- 22 • Submitting a Form with RIS, report period, material type, and sequence number and
23 process code "D" will be the unique identifier for the line to be deleted.
- 24 • Submitting a Form with RIS, report period, and material type with no sequence number and
25 a process code of "D" will delete all matching records.
- 26 • Submitting a Form with the RIS, report period, and a process code of "D" will delete the
27 entire material balance within the reporting dates.
28

29 SEQUENCE NUMBER - All detail lines that contain data must have a sequence number. Enter
30 a numerical value in sequential order beginning with the number one. Do not repeat or skip
31 numbers.
32

33 Use columns A and B to enter all numeric data by element and isotope weight.³
34

35 **COLUMN A - ELEMENT WEIGHT³**
36

37 Enter the total element weight of the SNM or source material being reported. If Pu²³⁸, report to
38 the nearest 0.1 gram. Report all other SNM to the nearest gram and all other source material
39 to the nearest kilogram.
40

41 Note: Optionally, if using XML format, reporting of source material to three decimal places may
42 be done, however both shipper and receiver must report to the same decimal place. If three
43 decimal reporting is being used, then the reporting unit is to the nearest thousandth of a
44 kilogram. For example, 1655 grams may be reported by both the shipper and receiver as 1.655

³Round up Fractions of 0.5 or greater. If the quantity to be entered is less than 0.5 of the reporting unit, round down to the next whole reporting unit.

1 kilograms. However, for consistency the licensee must continue to report to the same decimal
2 place for that material type. If at any time, during the stated material balance period, source
3 material has been reported to the third decimal on a transaction, the corresponding material
4 balance report must be reported to the same decimal place for consistency.

5
6 COLUMN B - ISOTOPE WEIGHT³

7
8 In the case of enriched uranium or U²³³, enter the weight of the isotope U²³⁵ or U²³³ as
9 appropriate; in the case of plutonium, enter the weight of the isotopes Pu²³⁹ and Pu²⁴¹, and in
10 the case of Pu²³⁸, enter the weight of the isotope Pu²³⁸. If Pu²³⁸, report to the nearest 0.1 of a
11 gram. If depleted uranium, enter the weight of the isotope U²³⁵ to the nearest kilogram. Make
12 no entry for other source material.

13
14 8. BEGINNING INVENTORY - U.S. GOVT-OWNED - Enter the inventory of U.S. GOVT-
15 owned special nuclear material or source material as of the beginning of business on
16 the first day of the period covered by the report. The quantities reported on line 8
17 (columns A and B) must agree with the reconciled quantities on line 80 (Ending
18 Inventory) on the report submitted for the previous reporting period.

19
20 9. BEGINNING INVENTORY - NOT U.S. GOVT-OWNED - Enter the inventory of Not-U.S.
21 GOVT-owned special nuclear material or source material as of the beginning of
22 business on the first day of the period covered by the report. The quantities reported on
23 line 9 (columns A and B) must agree with the reconciled quantities on line 81 (Ending
24 Inventory) of the report submitted for the previous reporting period.

25
26 RECEIPTS

27
28 11. PROCUREMENT FROM DOE - Enter quantities of special nuclear material (or source
29 material) which have been purchased from DOE during the reporting period and
30 reported to the NRC on DOE/NRC Form 741. This may be done by listing individual
31 receipts for each individual RIS as reported on DOE/NRC Form 741 or a total of receipts
32 for each individual RIS during the reporting period. SNM or source material quantities
33 entered on line 11 are not entered on line 30.

34
35 13. PROCUREMENT FOR THE ACCOUNT OF DOE - Enter quantities of special nuclear
36 material (or source material) which have been purchased for the account of DOE during
37 the reporting period and reported to the NRC on DOE/NRC Form 741. This may be
38 done by listing individual receipts for each individual RIS as reported on DOE/NRC Form
39 741 or a total of receipts for each individual RIS during the reporting period. SNM or
40 source material quantities entered on line 13 are not entered on line 30.

41
42 14. DOD RETURNS - USE A - Leave blank.

43
44 15. DOD RETURNS - USE B - Leave blank.

45
46 16. DOD RETURNS - OTHER USES - Leave blank.

- 1 21. PRODUCTION - Enter the calculated net quantity of plutonium or U²³³ produced in the
2 fuel and/or blanket material of a reactor during the reporting period. For licensees
3 reporting under 10 CFR Part 75, if the fuel from which the plutonium or U²³³ produced
4 was removed or discharged from the reactor during this reporting period, enter the
5 discharged quantity on line 21 directly after the word "Production." Uranium mines and
6 mills should account for uranium mined/milled as production for the reporting period.
7
- 8 22. FROM OTHER MATERIALS - Enter increases resulting from the introduction of another
9 material into the material balance being reported. If the added quantity is the result of
10 blending, burnup, or enrichment, identify the balance supplying the material by entering
11 the appropriate inventory change type (ICT) code from the following list:
12
- | | | |
|----|----|--|
| 13 | EN | Enriched to normal |
| 14 | ED | Enriched to depleted |
| 15 | NE | Normal to enriched |
| 16 | ND | Normal to depleted |
| 17 | DE | Depleted to enriched |
| 18 | DN | Depleted to normal |
| 19 | EE | Enriched (low/high) to enriched (high/low) |
- 20
21 EE can be low enrichment to high or high to low (i.e., any combination of the E1 through
22 E4 material type codes).
23
- 24 Enrichment facilities, not subject to Part 75 requirements, may use 22 as an entry
25 indicating a change type or as directed by the NRC. This can be any combination of
26 material types (10, 20, 81, and 89) but must be reported on each corresponding form for
27 each material type.
28
- 29 30. RECEIPTS REPORTED TO NRC ON DOE/NRC 741 (not listed elsewhere) - Enter the
30 SNM or source material received from others and reported on Form DOE/NRC 741 and
31 not listed elsewhere on this form. This may be done by listing individual receipts by RIS
32 as reported on DOE/NRC Form 741 or a total of receipts from each individual RIS
33 during the report period.
34
- 35 34. RECEIPTS - MISC. - A DOE/NRC Form 741 reporting the cumulative miscellaneous
36 receipts (ICT 34) must be completed. This requirement includes nuclear material
37 removed from inventory but now returned to inventory, if not accounted for elsewhere.
38
- 39 37. PROCUREMENT BY OTHERS - Leave blank.
40
- 41 38. DONATED MATERIAL - FROM U.S. GOVT TO OTHERS - Enter the amount of material
42 received as a donation from the U.S. GOVT.
43
- 44 39. DONATED MATERIAL - FROM OTHERS TO U.S. GOVT - Enter the amount of material
45 received as a donation by others to the account of the U.S. GOVT.
46
- 47 40. TOTAL - Enter the sums of columns A and B (lines 8 through 39).
48

1
2 REMOVALS
3

4 41. EXPENDED IN SPACE PROGRAMS - Leave blank.
5

6 42. SALES TO U.S. GOVT - Enter quantities of SNM or source material which have been
7 sold to the U.S. GOVT during the reporting period and have been reported to NRC on
8 DOE/NRC Form 741. This may be done by listing individual shipments by RIS as
9 reported on DOE/NRC Form 741 or a total of shipments to each individual RIS during
10 the reporting period. (SNM or source material quantities entered on line 42 are not
11 entered on line 51.)
12

13 43. SALES TO OTHERS FOR THE ACCOUNT OF U.S. GOVT - Enter quantities of special
14 nuclear material which have been sold for the account of the U.S. GOVT during the
15 reporting period and have been reported to NRC on DOE/NRC Form 741. This may be
16 done by listing individual shipments by RIS as reported on DOE/NRC Form 741 or a
17 total of shipments to each individual RIS during the reporting period. (SNM or source
18 material quantities entered on line 43 are not entered on line 51.)
19

20 44. DOD - USE A - Leave blank.
21

22 45. DOD - USE B - Leave blank.
23

24 46. DOD - Other USES - Leave blank.
25

26 47. EXPENDED IN U.S. GOVT TESTS - Leave blank.
27

28 48. ROUTINE TESTS - Leave blank.
29

30 49. SHIPPER - RECEIVER DIFFERENCE - Leave blank.
31

32 51. SHIPMENTS REPORTED TO NRC/DOE on DOE/NRC 741 (not listed elsewhere) -
33 Enter the quantities of special nuclear material or source material shipped to others and
34 reported to the NRC on DOE/NRC Form 741 but not listed elsewhere on this form.
35 This may be done by listing individual shipments by RIS as reported on DOE/NRC
36 Form 741 or a total of shipments to each individual RIS during the reporting period.
37

38 54. SHIPMENTS - MISC. - A DOE/NRC Form 741 reporting the cumulative miscellaneous
39 shipments (ICT 54) must be completed. Facilities reporting pursuant to 10 CFR Part 75
40 should also include transfers to burials on this line rather than on line 74.
41

42 58. DONATED MATERIAL - TO U.S. GOVT BY OTHERS - Enter the amount of nuclear
43 material removed by a donation to the U.S. GOVT.
44

45 59. DONATED MATERIAL - TO OTHERS BY THE U.S. GOVT - Enter the amount of
46 nuclear material removed from a U.S. GOVT account by donation to others.
47
48

1 65. ROUNDING ADJUSTMENT - Enter the quantity of nuclear material that is removed (as
2 a positive number) or added (as a negative number) to the inventory as a result of
3 rounding activities encountered by the licensee.
4

5 71. DEGRADATION TO OTHER MATERIALS - Enter decreases resulting from the
6 introduction of other material into the material balance being reported. If the decreased
7 quantity is the result of blending, burnup, or enrichment, identify the balance losing the
8 material by entering the appropriate code from the list in line 22 above.
9

10 72. DECAY⁴ - Enter the amount of radioactive decay which occurred during the reporting
11 period for plutonium and Pu²³⁸. When the SNM being reported is plutonium (material
12 type 50), enter the amount of radioactive decay of the isotope Pu²⁴¹ if the decay is 1
13 gram or more.
14

15 When the SNM being reported is Pu²³⁸, enter the amount of radioactive decay of the
16 isotope Pu²³⁸ if the decay is 0.1 gram or more.
17

18 73. FISSION AND TRANSMUTATION - Enter the calculated quantities of SNM lost by
19 fission and transmutation in a reactor.
20

21 74. NORMAL OPERATIONAL LOSSES/MEASURED DISCARDS - Normal operational
22 losses (NOLs) and measured discards are material that has been discarded, whether in
23 the form of solids, liquids, or gases, as determined by measurement or by estimate on
24 the basis of measurement.
25

26 All material that leaves the inventory through the process of normal operational
27 losses/measured discards must be accounted for on a DOE/NRC Form 741 (if not
28 previously reported in the period covered by this report). To account for these discards,
29 the following established RIS types are to be used.
30

31 If the discard is to a lagoon or pond (L), append an L to the receiver's RIS. Measured
32 discards to atmosphere or ground should be documented as an onsite transfer with the
33 licensee RIS as shipper and receiver. If the material goes off the inventory into a
34 holding area (refer to Holding Account in the glossary) for later removal to a burial site,
35 append an H to the receiver's RIS. When the material is eventually shipped to a burial
36 site, the transfer series on the Form 741 will show the shipper's RIS with an H appended
37 and the appropriate V series RIS in the receiver's block. Alternately, the licensee may
38 return the material from the holding account to the primary RIS and then ship the
39 material from the primary RIS. Such activities must also be documented on a
40 DOE/NRC form 741. Remove discards from inventory only when the material has been
41 disposed of (a) by transfer to an authorized recipient or holding area as provided in the
42 regulations in 10 CFR Part 40 or 74; (b) as authorized pursuant to 10 CFR 20.2002
43 (Commission-approved disposal methods); (c) as provided in 10 CFR 20.2003 (the
44 disposal of licensed material by release into sanitary sewage systems) or 10 CFR
45 20.2004 (treatment or disposal by incineration) or 10 CFR 20.1302 (concentrations in

⁴Round up Fractions of 0.5 or greater. If the quantity to be entered is less than 0.5 of the reporting unit, round down to the next whole reporting unit.

1 effluents to unrestricted areas); or (d) as provided in corresponding regulations of
2 Agreement States. Note: the establishment of "L" or "H" accounts requires prior NRC
3 approval.
4

5 75. ACCIDENTAL LOSSES - Accidental loss is the irretrievable and inadvertent loss of a
6 known quantity of SNM or source material as the result of an operational accident, as
7 determined by measurement or by estimate on the basis of measurement.
8

9 76. APPROVED WRITE-OFFS - Leave blank.
10

11 77. INVENTORY DIFFERENCE - Inventory difference (ID) is the difference between
12 physical inventory and book inventory after the book has been adjusted for all receipts
13 and removals. A negative entry reports a gain. A positive entry reports a loss.
14

15 Reactors should not report an inventory difference to NMMSS. At the time of physical
16 inventory, the value assigned to an SNM item (assembly, rod, fragment, sealed
17 container, etc.) should be recorded identically on both the book inventory and the
18 physical inventory. At a reactor, unlike facilities that process SNM for some end use,
19 adjustments to the values assigned to items (representing nuclear loss, decay,
20 production rounding, etc.) are explainable and should be reported as such.
21

22 80. ENDING INVENTORY - U.S. GOVT-OWNED - Enter the ending inventory which is U.S.
23 GOVT-owned as of the end of the last day of the period covered by this report.
24

25 81. ENDING INVENTORY - NOT U.S. GOVT-OWNED - Enter the ending inventory which is
26 Not U.S. GOVT-owned as of the last day of the period covered by this report.
27

28 82. TOTAL - Enter the sums of lines 41 through 81. The totals reported on this line must
29 agree with those on line 40.
30

31 83. BIAS ADJUSTMENT - The ID bias adjustment is that quantity of material which should
32 be added to or subtracted from the ID quantity on line 77 to produce the best estimate of
33 an unbiased ID. The adjustment represents the algebraic summation of the impact of
34 measurement system biases on each component of the measured plant material
35 balance. Include on this line the sum of the bias adjustments for the ID for the current
36 period. Any prior period adjustments should also be included on this line. Do not
37 include bias adjustments that have already been applied to the source data in the
38 material balance equation.
39

40 Note: the total ending inventories must match the total inventory reported on DOE/NRC
41 Form 742C for a material type.
42
43
44
45
46
47
48

1 **2.2 Section B, "Foreign Obligations"**

2
3 The total amount of obligated nuclear material on hand as of the end of the reporting period
4 must be accounted for by material type. It may not exceed the physical inventory.

5
6
7 The following column entries are required:

- 8
9 1. COUNTRY OF OBLIGATION - Enter the unique obligated code for each category of
10 nuclear material. The codes are listed in Appendix C. An updated listing is available
11 from the NMMSS operator.
12
13 2. ELEMENT WEIGHT - Enter the element weight (Pu, U, or Th) of the obligated special
14 nuclear material or source material in the reporting units specified for column A of
15 Section A of the form (see Section 2.1 of this NUREG).
16
17
18 3. ISOTOPE WEIGHT - Enter the appropriate isotope weight; if enriched uranium or U²³³,
19 enter weight to the nearest gram of U²³⁵ or U²³³, as appropriate. If plutonium, make no
20 entry.
21
22 4. TOTAL WEIGHT - Enter the totals for columns 2 and 3. These totals represent the total
23 obligated material at the facility. Total weight of obligated nuclear material may not
24 exceed the total element and isotope weight reported on line 82.
25

26 **2.3 Section C, "Certification"**

27
28 SIGNATURE, TITLE, AND DATE - The report, if submitted as a hard copy, shall be signed by
29 an authorized representative of the licensee. If submitted electronically, each licensee must
30 establish internal procedures to ensure that the information provided in the report is accurate
31 and that the report has been prepared and issued only by the authorized licensee personnel.
32

33 **3 INSTRUCTIONS FOR COMPLETING DOE/NRC FORM 742C, "PHYSICAL
34 INVENTORY LISTING"**

35
36 DOE/NRC Form 742C describes the status of the nuclear material reported on lines 80 and 81
37 of DOE/NRC Form 742, as of the end of the reporting period. There are two separate sets of
38 procedures for filing DOE/NRC Form 742C, one for licensees required to report pursuant to 10
39 CFR 74.13 or 150.17 and the other licensees required to report under 10 CFR Part 75.
40

41 The instructions for completing the form are presented separately for the two categories of
42 licensees.
43

44 **3.1 Licensees Reporting Under 10 CFR 74.13 or 150.17**

45
46 The following numbered instructions correspond to the numbered blocks or lines to be
47 completed by licensees on DOE/NRC Form 742C, "Physical Inventory Listing" (PIL). Source
48 material with no foreign obligation and that is not utilized in enrichment services, downblending

1 of uranium that has an initial enrichment of the U²³⁵ isotope of 10 percent or more, or in the
2 fabrication of mixed-oxide fuels is exempt from this requirement.

- 3
4 1. NAME AND ADDRESS - Leave blank.
5
6 2. REPORTING IDENTIFICATION SYMBOL (RIS) - Enter the RIS of the reporting facility.
7
8 3. INVENTORY DATE - Enter the ending date of the reporting period for the Material
9 Balance Report.
10
11 4. LICENSE NUMBER(S) - Leave blank.
12
13 5. BATCH DATA - The basic reporting entity is the batch, defined as "a portion of nuclear
14 material handled as a unit for accounting purposes at a key measurement point and for
15 which the composition and quantity are defined by a single set of specifications or
16 measurements. The nuclear material may be in bulk form or contained in a number of
17 separate items."

18
19 A batch may have only one value for:

- 20
21 • batch name
22 • number of items
23 • composition/facility code
24 • key measurement point
25 • measurement basis
26 • scrap program
27 • owner code
28

29 In general, all of the data for one batch will be entered on one line of block 8 of the
30 DOE/NRC Form 742C. An exception is when a single discrete item contains more than
31 one material (e.g., irradiated fuel containing both uranium and plutonium); in this case, a
32 separate line should be used for the data for each material, and all data common to all
33 materials in the batch should be entered on the first line.
34

35 5a. MATERIAL TYPE CODE

36 Enter the appropriate special nuclear material type code, as follows:

Code	Description
10	Depleted uranium
E1	Uranium enriched greater than normal but less than 5%
E2	Uranium in enrichment of 5% or more but less than 20%
E3	Uranium in enrichment of 20% or more but less than 80%
E4	Uranium in enrichment of 80% or more
50	Plutonium
70	U ²³³
81	Normal uranium
83	Pu ²³⁸
88	Thorium
89	Uranium in cascade

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43

5b. COMPOSITION/FACILITY (COMP/FAC) CODE - Enter the appropriate code from the following table.

Code ⁵	Description
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
899	Inventory total line

5c. ELEMENT WEIGHT - Enter the element weight as instructed for columns A and B of Section A of DOE/NRC Form 742 (see Section 2.1 of this NUREG).

5d. ISOTOPE WEIGHT - Enter the isotope weights as instructed for columns A and B of Section A of DOE/NRC Form 742 (see Section 2.1 of this NUREG).

5e. DOE PROJECT NO. - Make no entry unless reporting U.S. GOVT-owned material. See DOE Orders Series 470 for guidance.

5f. SCRAP PROGRAM - Leave blank.

5g. WEIGHT PERCENT ISOTOPE - Leave blank.

5h. OWNER CODE - This code describes the ownership of the material at the time it was in the shipper's possession. Enter the appropriate code from the list below.

- G U.S. Government-owned
- J Not-U.S. Government-owned

Note: Refer to Glossary, Appendix D, for further description of U.S. Government-owned

5i. SEQUENCE NUMBER - Enter the line number. Number lines consecutively beginning with number 1. Do not repeat or skip numbers.

5j. BATCH NAME - No entry required. Can be used as licensee desires.

5k. NO. OF ITEMS - No entry required. Can be used as licensee desires.

5l. KEY MEASUREMENT POINT - Leave blank.

⁵ See Appendix A for more detailed code instructions. Enrichment facilities, not subject to the requirements in Part 75, are authorized to continue using the inventory composition codes that have been authorized for use by the NRC.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48

5m. MEASUREMENT I.D. - Leave blank.

5n. ENTRY STATUS - Leave blank.

5o. MATERIAL BALANCE AREA (MBA) - Leave blank.

5p. SITE IDC - Leave blank.

5q. PROCESS CODE - Enter processing code A, C, or D. The process codes C and D may be used to modify report data for only the current processing period.

A Initial entry of data

C Replacement of data. Data may be replaced at any time prior to the close of the processing period in which the initial entry was made.

D Deletion of data. Data may be deleted at any time prior to the close of the processing period in which the initial entry was made.

Modification of reported material balance reports may be done for the current processing periods. The Process codes to be used are "C" for replace and "D" for delete.

- Submitting a Form with RIS, report period, material type, and sequence number and process code "C" will be the unique identifier for the line to be replaced.
- Submitting a Form with RIS, report period, material type, and sequence number and process code "D" will be the unique identifier for the line to be deleted.
- Submitting a Form with RIS, report period, and material type with no sequence number and a process code of "D" will delete all matching records.
- Submitting a Form with the RIS, report period, and a process code of "D" will delete the entire material balance within the reporting dates.

6. TOTALS - Enter the total inventory reported in the above categories for Element Weight (5c), Isotope Weight (5d), and the next sequential Sequence Number. This total elemental weight and isotope weight must agree with the sum of the quantities entered on lines 80 and 81 on the DOE/NRC Form 742 for each individual material type being reported.

7. SIGNATURE - The report, if submitted as hard copy, shall be signed by an authorized representative of the licensee. Otherwise, each licensee must establish internal procedures to ensure that the information provided in the report is accurate and that the report has been prepared and issued only by authorized licensee personnel.

8. TITLE - Enter the title of the person submitting the report (required for paper submission only).

1 9. DATE - Enter the date the report was submitted (required for paper submission only).

2
3 Submit the data as specified in Section 1.3.

4
5 Refer to the DOE Orders Series 470.4 "Safeguards and Security Program," and DOE M 470.4-
6 6 "Nuclear Material Control and Accounting" for U.S. GOVT-owned material holdings.
7 Reporting data for U.S. GOVT-owned inventory in an expanded level of detail that is a DOE
8 reporting requirement which also meets inventory reporting requirements of NRC. The total of
9 GOVT-owned inventory on which inventory data is reported must agree with the quantity
10 entered on line 80 (ENDING INVENTORY-U.S. GOVT - OWNED) on the DOE/NRC Form 742.
11

12 **3.2 Licensees Reporting Under 10 CFR PART 75**

13
14 The instructions in this section apply only to facilities which have been notified by letter from the
15 NRC, as provided in 10 CFR 75.11, that they have been identified under the U.S./IAEA
16 Safeguards Agreement. Facilities that are required to submit initial inventory reports under 10
17 CFR 75.32 and for which a physical inventory is not performed shall prepare DOE/NRC Form
18 742 according to the instructions in Section 2.1, completing lines 2, 3, 4, 80, 81, and 82.
19 The information in the initial inventory report may be based upon the licensee's book record.
20 Facilities reporting under this section must file subsequent Material Balance Reports based
21 upon a physical inventory and are required to attach a completed DOE/NRC Form 742C,
22 "Physical Inventory Listing" (PIL). Such reports are required with respect to each physical
23 inventory taken as part of the material accounting and control procedures required by 10 CFR
24 75.21. Unless otherwise specified by license conditions, such reports shall be dispatched as
25 soon as possible and in any event within 30 days of the start of the physical inventory.
26

27 After completion of Form 742C, prepare the submittal in computer-readable format following the
28 instructions in NMMSS Report D-24.
29

30 The following numbered instructions correspond to the numbered blocks or columns to be
31 completed by licensees on the PIL.
32

- 33 1. NAME AND ADDRESS - Leave blank.
- 34
35 2. REPORTING IDENTIFICATION SYMBOL (RIS) - Enter the RIS of the reporting facility.
- 36
37 3. INVENTORY DATE - Enter the ending date for the period covered by the Material
38 Balance Report.
- 39
40 4. LICENSE NUMBER(S) - Leave blank.
- 41
42 5. BATCH DATA - The basic reporting entity is the batch, defined as "a portion of nuclear
43 material handled as a unit for accounting purposes at a key measurement point and for
44 which the composition and quantity are defined by a single set of specifications or
45 measurements. The nuclear material may be in bulk form or contained in a number of
46 separate items."
47

1 A batch may have only one value for:

- 2
- 3 • batch name
- 4 • number of items
- 5 • composition/facility code
- 6 • key measurement point
- 7 • measurement basis
- 8 • scrap program
- 9 • owner code

10
11 In general, all of the data for one batch will be entered on one line of block 8 of the
12 DOE/NRC Form 742C. One exception is when if a single discrete item contains more
13 than one material (e.g., irradiated fuel containing both uranium and plutonium); in such a
14 case, a separate line should be used for the data for each material, and all data
15 common to all materials in the batch entered should be on the first line.

16
17 5a. MATERIAL TYPE - Enter the appropriate special nuclear material type code, as follows:

Code	Description
10	Depleted uranium
20 ⁶	Enriched uranium
50	Plutonium
70	U ²³³
81	Normal uranium
83	Pu ²³⁸
88	Thorium
89	Uranium in cascade

27
28 5b. COMPOSITION/FACILITY (COMP/FAC) CODE - Enter the appropriate code from the
29 list developed during the formulation and negotiation of the facility attachment or
30 transitional facility attachment.

31
32 5c. ELEMENT WEIGHT - Enter the weight of the contained special nuclear material or
33 source material in the same units as specified for Section A of DOE/NRC Form 742 (see
34 Section 2.1 of these instructions).

35
36 5d. ISOTOPE WEIGHT - Enter the isotope weight. If enriched uranium or U²³³, enter the
37 weight to the nearest gram of U²³⁵ or U²³³, as appropriate. If plutonium, enter the sum of
38 Pu²³⁹ and Pu²⁴¹ to the nearest gram. If Pu²³⁸, enter the weight of the isotope Pu²³⁸ to the

⁶If reporting enriched uranium (material type 20), enter the appropriate enrichment level code in lieu of "20", as follows:

Code	Description
E1	Greater than normal but less than 5%
E2	5% or more, but less than 20%
E3	20% or more, but less than 80%
E4	80% or more

1 nearest 0.1 gram. For depleted uranium, enter the U²³⁵ isotope weight to the nearest
2 kilogram. Make no entry for other source material.
3

4 Note: Optionally, If using XML format, reporting of source material to three (3) decimal
5 places may be done, however both shipper and receiver must report to the same
6 decimal place. If three (3) decimal reporting is being used, then the reporting unit is to
7 the nearest thousandth of a kilogram. For example, 1655 grams may be reported by
8 both the shipper and receiver as 1.655 kilograms. However, the licensee must continue
9 to report to the same decimal place for consistency.
10

11 5e. DOE PROJECT NO. - Make no entry unless reporting U.S. GOVT-owned material.
12 See DOE Order Series 470 for guidance.
13

14 5f. SCRAP PROGRAM - Make no entry unless reporting U.S. GOVT-owned material.
15 See DOE Order Series 470 for guidance.
16

17 5g. WEIGHT PERCENT ISOTOPE - Enter the weight percent of the isotope U²³⁵ if uranium
18 enriched or depleted in U²³⁵. If plutonium, enter the weight percent of the isotope Pu²⁴⁰.
19 If Pu²³⁸, enter the weight percent of the isotope Pu²³⁸. Report weight percent to at least
20 two, but not more than four, decimal places, depending on the accuracy of the
21 measurement method (for example, XX.XXXX%). For U²³³, enter the parts per million of
22 U²³². This column does not apply for normal uranium or thorium. Use separate lines to
23 report material of different enrichments.
24

25 5h. OWNER CODE - This code describes the ownership of the material at the time it was in
26 the shipper's possession. Enter the appropriate code from the list below.
27

28 G U.S. Government-owned
29 J Not-U.S. Government-owned
30

31 Note: Refer to Glossary, Appendix D, for further description of U.S. Government-owned
32

33 5i. SEQUENCE NUMBER - Enter the line number. Use consecutive numbers beginning
34 with number 1. Do not repeat or skip numbers.
35

36 5j. BATCH NAME - Enter a unique identifier for the batch as defined in block 8. If the batch
37 is a discrete item with a unique identifying serial number or name (e.g., a fuel assembly,
38 sealed source, or uranium hexafluoride (UF₆) cylinder), enter the identification number of
39 the batch name. Note that the same batch name must not appear twice in the same
40 report for the same material type.
41

42 5k. NO. OF ITEMS - If the batch is composed of a number of discrete items, enter the
43 number of items. If the batch is bulk material, or if the number of items is not
44 meaningful, enter 1. If more than one line is used to report data on the batch, enter the
45 number of data items on each line.
46

47 5l. KEY MEASUREMENT POINT - Enter the code for the appropriate inventory key
48 measurement point, as specified in the FA or Transitional Facility Attachment (TFA).

- 1 5m. MEASUREMENT I.D. - Fill in the three sections of this data field as follows.
2
- 3 5m1. MEASUREMENT BASIS: Enter the pertinent code from the following:
4
- 5 N if batch data are based on measurements made in an IAEA material balance area
6 (MBA) (RIS) other than the reporting MBA (RIS)
7
- 8 L if batch data are based on measurements made in another IAEA MBA (RIS) and
9 have been previously reported by the reporting MBA (RIS) in a DOE/NRC Form
10 741, "Nuclear Materials Transaction Report" or a DOE/NRC Form 742C,
11 "Physical Inventory Listing"
12
- 13 M if batch data are based on measurements made in the reporting IAEA MBA (RIS)
14 and the data were not previously reported
15
- 16 T if batch data are based on measurements in the reporting IAEA MBA (RIS) and
17 have been previously reported for that MBA (RIS) in a DOE/NRC Form 741 or
18 742C
19
- 20 5m2. OTHER MEASUREMENT POINT - If the batch data are based on measurements made
21 at a different KMP from the one specified above, enter the identification of the key
22 measurement point at which the measurements were made.
23
- 24 5m3. MEASUREMENT METHOD - In some cases, the FA or TFA may provide codes for
25 identifying the measurement method used. In such cases, enter the appropriate code.
26
- 27 5n. ENTRY STATUS - Enter an "N".
28
- 29 5o. MBA - Leave blank.
30
- 31 5p. SITE IDC - Leave blank.
32
- 33 5q. PROCESS CODE - Enter processing code A, C, or D. The process codes C and D may
34 be used to modify report data for only the current processing period.
35
- 36 A Initial entry of data
37
- 38 C Replacement of data. Data may be replaced at any time prior to the close of the
39 processing period in which the initial entry was made.
40
- 41 D Deletion of data. Data may be deleted at any time prior to the close of the
42 processing period in which the initial entry was made.
43
- 44 Modification of reported material balance reports may be done for the current
45 processing periods. The Process codes to be used are "C" for replace and "D" for
46 delete.
- 47 • Submitting a Form with RIS, report period, material type, and sequence number and
48 process code "C" will be the unique identifier for the line to be replaced.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

- Submitting a Form with RIS, report period, material type, and sequence number and process code "D" will be the unique identifier for the line to be deleted.
- Submitting a Form with RIS, report period, and material type with no sequence number and a process code of "D" will delete all matching records.
- Submitting a Form with the RIS, report period, and a process code of "D" will delete the entire material balance within the reporting dates.

6. TOTALS - Enter the total inventory reported in the above categories for Element Weight (5c), Isotope Weight (5d), and the next sequential Sequence Number. This total must agree with the sum of the quantities entered on lines 80 and 81 on the DOE/NRC Form 742.
7. SIGNATURE - The form, if submitted as hard copy, must be signed by an authorized representative of the licensee. Otherwise, each licensee must establish internal procedures to ensure that the information provided in the report is accurate and that the report has been prepared and issued only by the authorized licensee personnel.
8. TITLE - Enter the title of the person who signed the report (required for paper submission only).
9. DATE - Enter the date the report was signed (required for paper submission only).

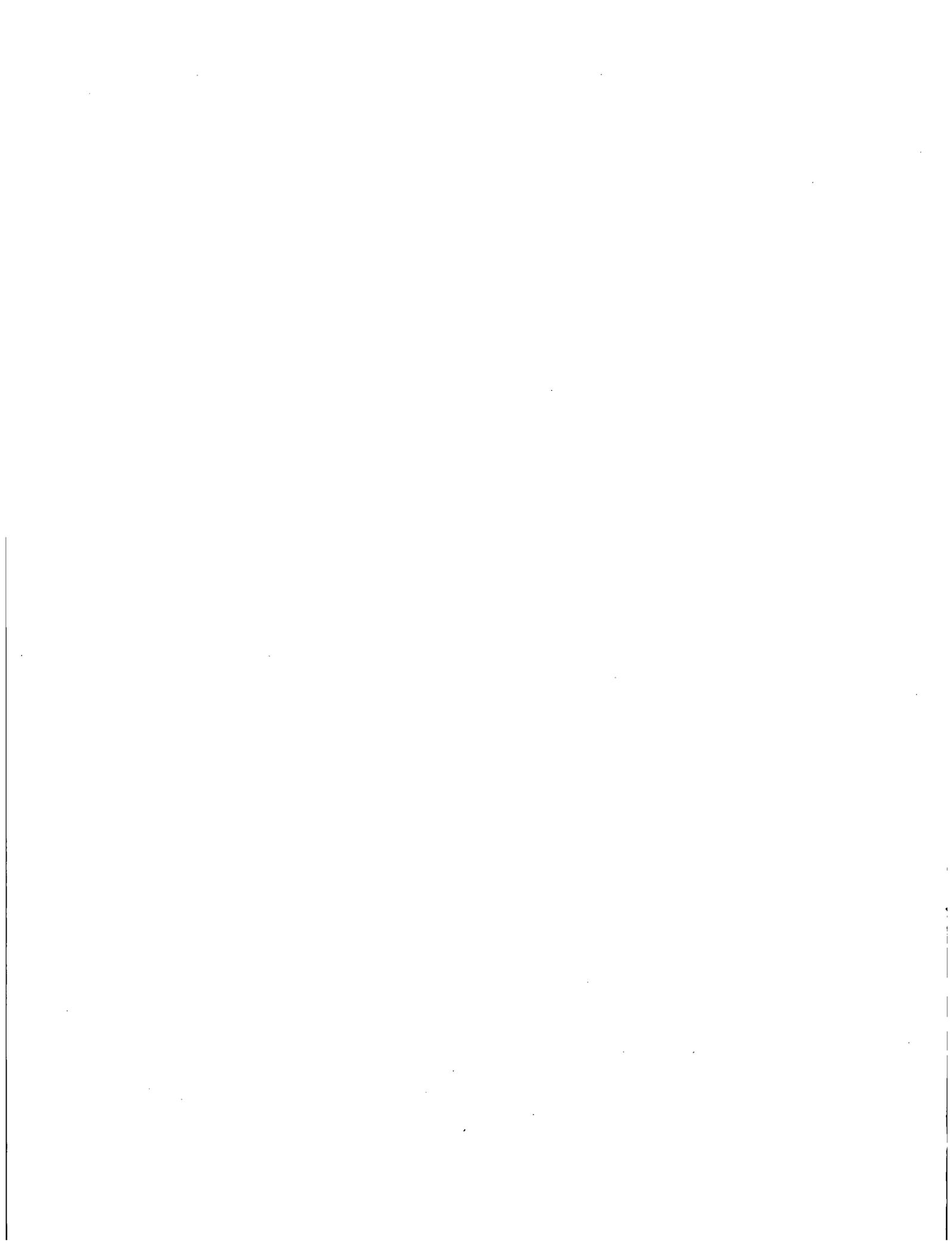
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

APPENDIX A

COMPOSITION CODE INSTRUCTIONS



- 1 860 In Reactors and Critical Assemblies
2
3 Enter this code for SNM or source material in reactors, test piles, and critical assemblies,
4 and SNM being used for radiation studies. Use code 864 to report excess, spare, or
5 transiently used fuel elements.
6
- 7 861 In Cooling Basins
8
9 Enter for irradiated SNM or source material in cooling basins held for future recovery or
10 disposal (including reactor-produced SNM). Use this code also for spent fuel in dry storage.
11
- 12 862 In Conversion and Fabrication Processes
13
14 Enter for SNM or source material in conversion or fabrication processes which change its
15 chemical or physical form. Sealed sources, unopened receipts, and ultimate products
16 maintained under tamper-safing are not considered "in process."
17 Includes uranium within an enrichment plant (i.e., cascade).
18
- 19 863 In Recovery Processes
20
21 Enter for SNM or source material in a recovery process (i.e., nuclear material in the process
22 of being separated from original fuel and other reactor products and nuclear material in the
23 process of being removed from undesired materials and converted to usable forms).
24
- 25 864 Materials Not in Process
26
27 Enter for SNM or source material in all unopened receipts, sealed sources, and ultimate
28 products maintained under tamper-safing.
29
- 30 865 Unirradiated Scrap Awaiting Recovery
31
32 Enter for SNM or source material in unirradiated scrap material which is awaiting in-house
33 or offsite recovery.
34
- 35 866 Unirradiated Scrap Awaiting Disposal
36
37 Enter for SNM or source material in unirradiated scrap material which is awaiting transfer to
38 an authorized disposal facility.
39
- 40 899 Inventory Total Line
41
42 Enter, for a given material type, the cumulative total reported.

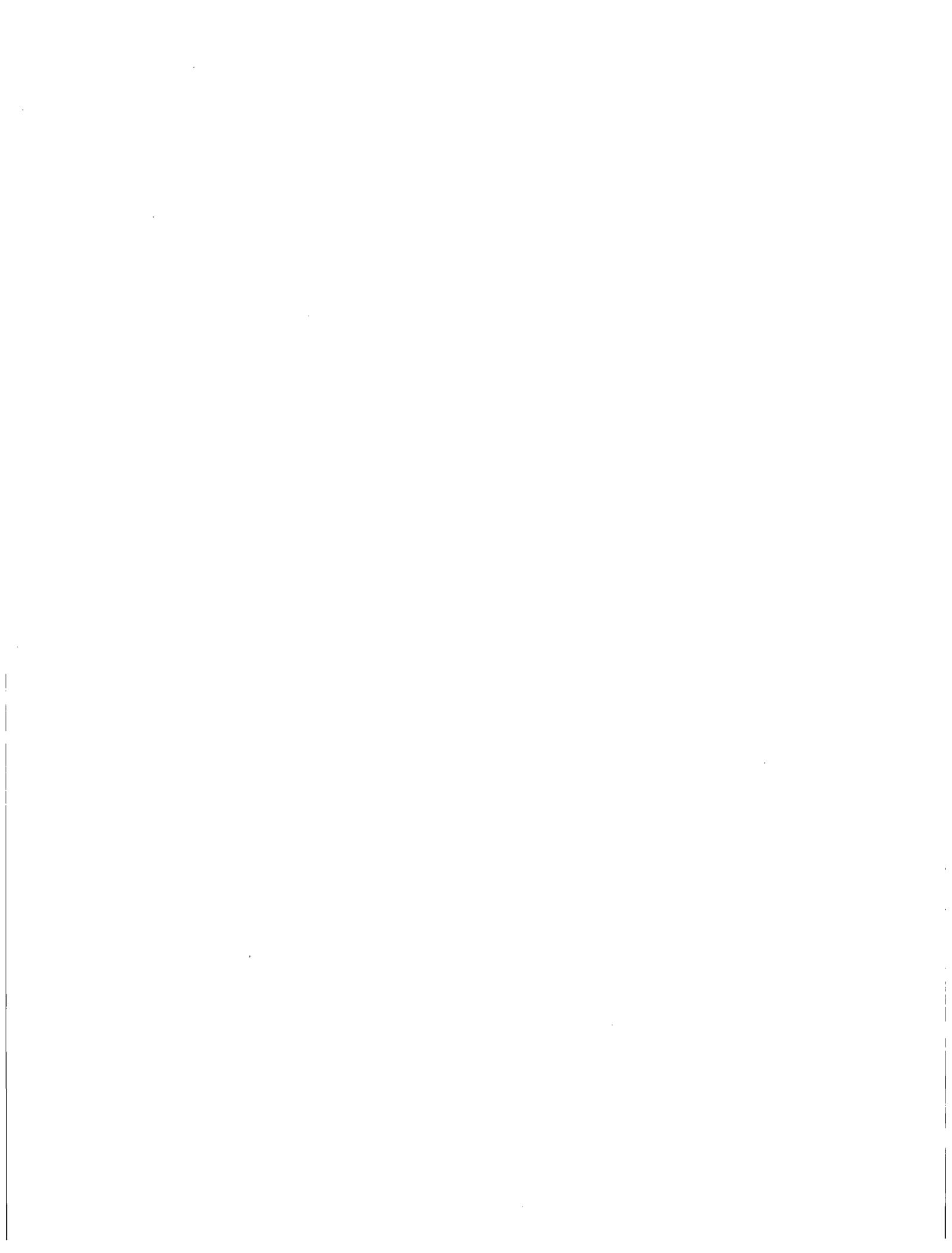


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

APPENDIX B

DOE/NRC FORM 742, "MATERIAL BALANCE REPORT," (BLANK) AND

DOE/NRC FORM 742C, "PHYSICAL INVENTORY LISTING" (BLANK)



(MM-YYYY)
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
AND

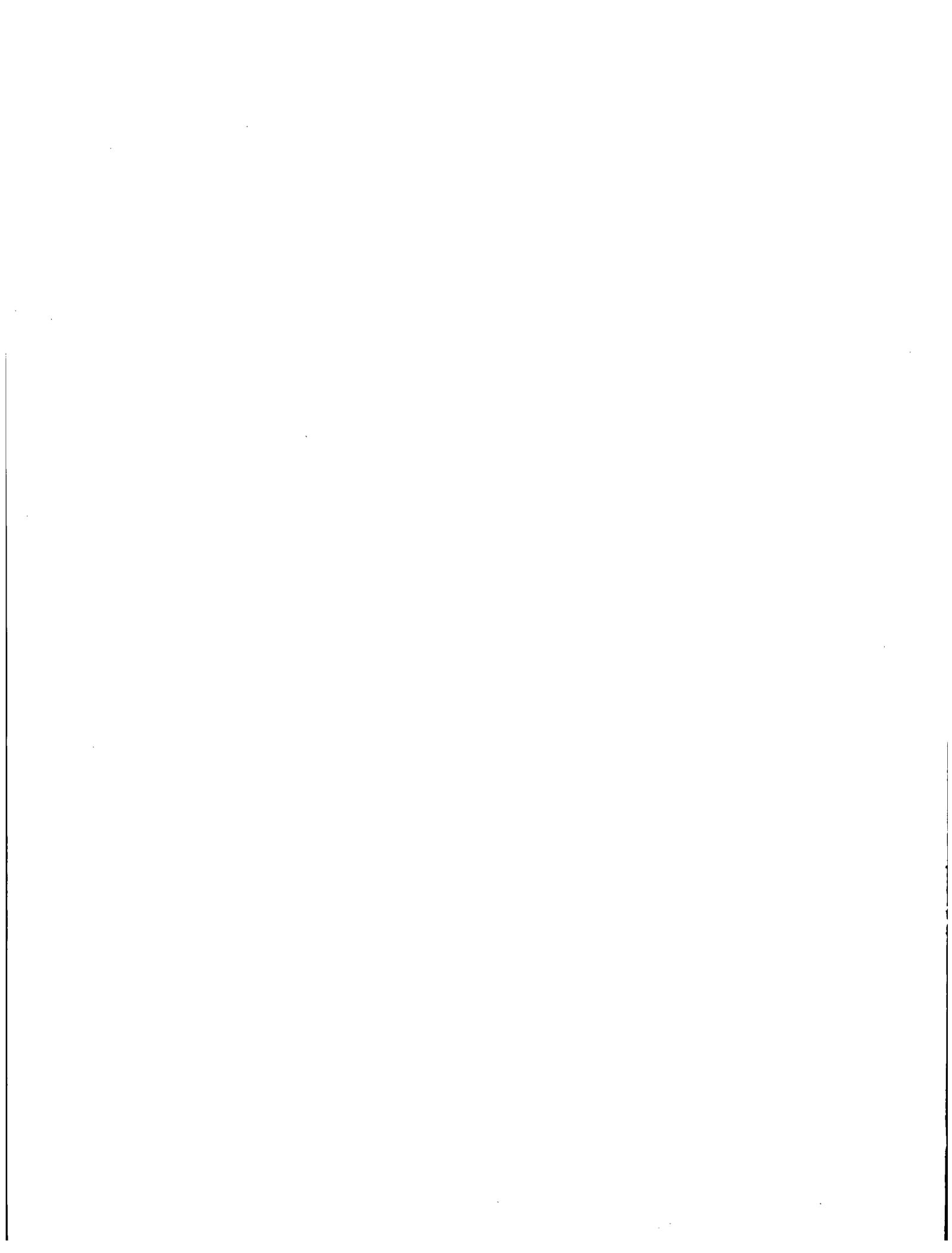
Estimated burden per response to comply with this mandatory collection request: 5 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory 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.

MATERIAL BALANCE REPORT

1. NAME AND ADDRESS	2. LICENSE NUMBER(S)	3. REPORTING IDENTIFICATION SYMBOL (RIS)
	4. REPORT PERIOD (MM/DD/YYYY) FROM _____ TO _____	5. MATERIAL TYPE (Submit separate report for each type)

SECTION A MATERIAL ACCOUNTABILITY

PC	SEQ		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		
		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)		
		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		



1
2
3
4
5
6
7
8
9
10
11
12

APPENDIX C
OBLIGATION CODES



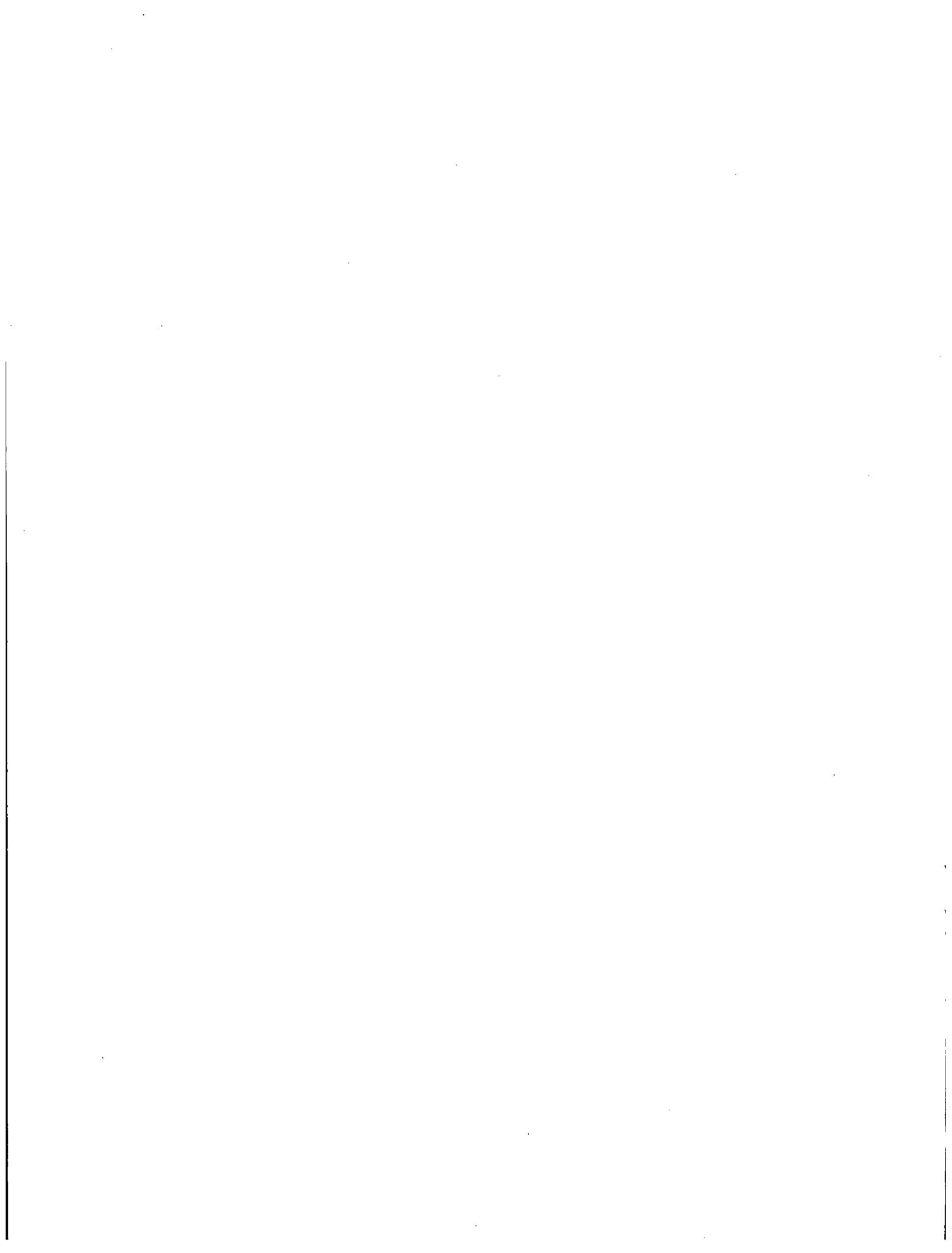
1
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45

Table 1

<u>Obligation Code</u>	<u>Country/Entity</u>
31	Australia
32	Canada
33	EURATOM
34	Japan
35	People's Republic of China
37	Switzerland
38	Argentina
39	Brazil
40	Chile
81	Australia/Japan
82	Canada/Japan
83	Euratom/Japan
84	Australia/Euratom/Japan
85	Canada/Euratom/Japan
86	China/Japan
87	Australia/Canada
88	Australia/Euratom/Canada
91	Australia and EURATOM
92	Canada and EURATOM
WR	Former Soviet Union Weapons Material

NOTE: *EURATOM*—As of May 2004, an organization consisting of the following member countries: Austria, Belgium, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom.

For any other obligation codes, contact the NMMSS for further instructions.



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52

APPENDIX D

GLOSSARY

1
2
3 **GLOSSARY**
4

5 *Accountability*—The determination of, and current record maintenance of, special nuclear
6 material (SNM) and source material quantities associated with transfers, measured discards,
7 inventories, and inventory differences that might result from theft, diversion, or other
8 unidentified loss mechanisms.
9

10 *Agreement State*—Any State of the U.S. with which NRC, or its predecessor, the Atomic
11 Energy Commission, has entered into an agreement under Section 274b of the Atomic Energy
12 Act of 1954, as amended.
13

14 *Book Inventory*—The algebraic sum of the most recent physical inventory of the material
15 balance area and of all inventory changes that have occurred since the physical inventory was
16 taken.
17

18 *Concise Note*—Additional nuclear material transaction, material balance, or inventory data
19 supplied, in free text format, by facilities engaged in the import and/or export of nuclear
20 materials, by facilities selected under the provisions of the Agreement between the United
21 States of America and the IAEA for the application of safeguards in the U.S./IAEA Safeguards
22 Agreement, by any facility that would like to transmit any additional explanatory nuclear
23 material information, or by any facility reporting what has been identified as safeguards
24 information.
25

26 *EURATOM*—As of May 2004, an organization consisting of the following member countries:
27 Austria, Belgium, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Greece,
28 Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland,
29 Portugal, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom.
30

31 *Foreign obligated nuclear material*—Source material or special nuclear material which is subject
32 to the terms and conditions of an Agreement that the U.S. Government has entered into with
33 another government or group of governments.
34

35 *Highly enriched uranium (HEU)*—Uranium enriched to 20 percent or greater in the isotope
36 uranium-235.
37

38 *Holding Account*—Holding accounts are typically identified by four character reporting
39 identification symbols (RIS) ending in the letter "H" assigned by NRC. Also some enrichment
40 facilities have holding accounts identified by three character RISs beginning with the letter "V".
41 Regardless of the RIS, these accounts usually acquired inventory from the shipment of licensed
42 material from the primary RIS in use at the licensee. Typically these accounts have been used
43 by a small number of licensees for nuclear materials not expected to be immediately processed,
44 reprocessed, or disposed of. However the licensed nuclear materials in holding accounts are
45 still in the licensee's possession and must be included in inventories reported to NMMSS.
46
47
48
49

1 *Inventory difference (ID)*—The arithmetic difference between a book inventory and the
2 corresponding physical inventory that closes the material balance period. It is calculated by
3 subtracting the ending inventory (EI) and removals from inventory ® from the beginning
4 inventory (BI) and additions to inventory (A) during the period between physical inventories.
5 Mathematically ID can be expressed as:

$$6 \quad ID = (BI + A - R) - EI$$

7
8
9 where (BI + A - R) is the book inventory.

10
11 *Inventory reconciliation*—The adjustment of the book record quantity of both elements and
12 fissile isotopes to reflect the results of a physical inventory. In a broad sense, inventory
13 reconciliation involves the activities of calculating (1) the ID for the material balance period in
14 question, (2) the uncertainty value associated with the ID, (3) the active inventory for the period,
15 and (4) any bias adjustment and/or prior period adjustment associated with the ID value.

16
17 *Low-enriched uranium (LEU)*—Uranium enriched below 20 percent in the isotope uranium-235.

18
19 *Material balance period*—The time span to which a material or physical inventory pertains.

20
21 *Nuclear Materials Management and Safeguards System (NMMSS)*—The national database and
22 information system for select nuclear materials controlled by the U.S. Government. This
23 system was created to support national safeguards and management objectives in domestic
24 and international programs. The system stores data on nuclear material transactions and
25 inventories, and produces a wide range of printed reports for use by DOE and NRC and those
26 the licensees they regulate. The system is used to satisfy the nuclear materials information
27 requirements of agreements between the U.S. and foreign entities. In addition, the system
28 provides the reporting interface between facilities selected under the provisions of the
29 U.S./IAEA Safeguards Agreement.

30
31 *Physical inventory*—A physical determination of the quantity of nuclear material on hand at a
32 given time. The methods of physical inventory and the associated measurements vary,
33 depending on the material to be inventoried and the process involved. A book inventory
34 between physical inventory takings can be determined based on the physical inventory quantity
35 from the prior period together with all subsequent inventory changes associated with the
36 determination of that book inventory. The primary purpose of a physical inventory is to confirm
37 the absence of (or to detect) a loss, theft, or diversion of SNM.

38
39 *Report Period*—The report period is inclusive of defined dates (i.e. Oct. 01, 2005 through Sept.
40 30, 2006.) Reports for a reporting period, such as inventory, material balance, and related
41 transactions reports must assure that there are not any undocumented dates between the
42 previous and current submittals.

43
44 *Reporting identification symbol (RIS)*—A unique combination of three or four letters which is
45 assigned to each reporting organization by the NRC for the purpose of identification in the
46 NMMSS database.

47
48 *Shipper-receiver difference (SRD)*—The difference between what a shipper claims was
49 contained in a shipment of SNM and what the receiver claims was received, where both the
50 shipper's and receiver's values are based on measurement.

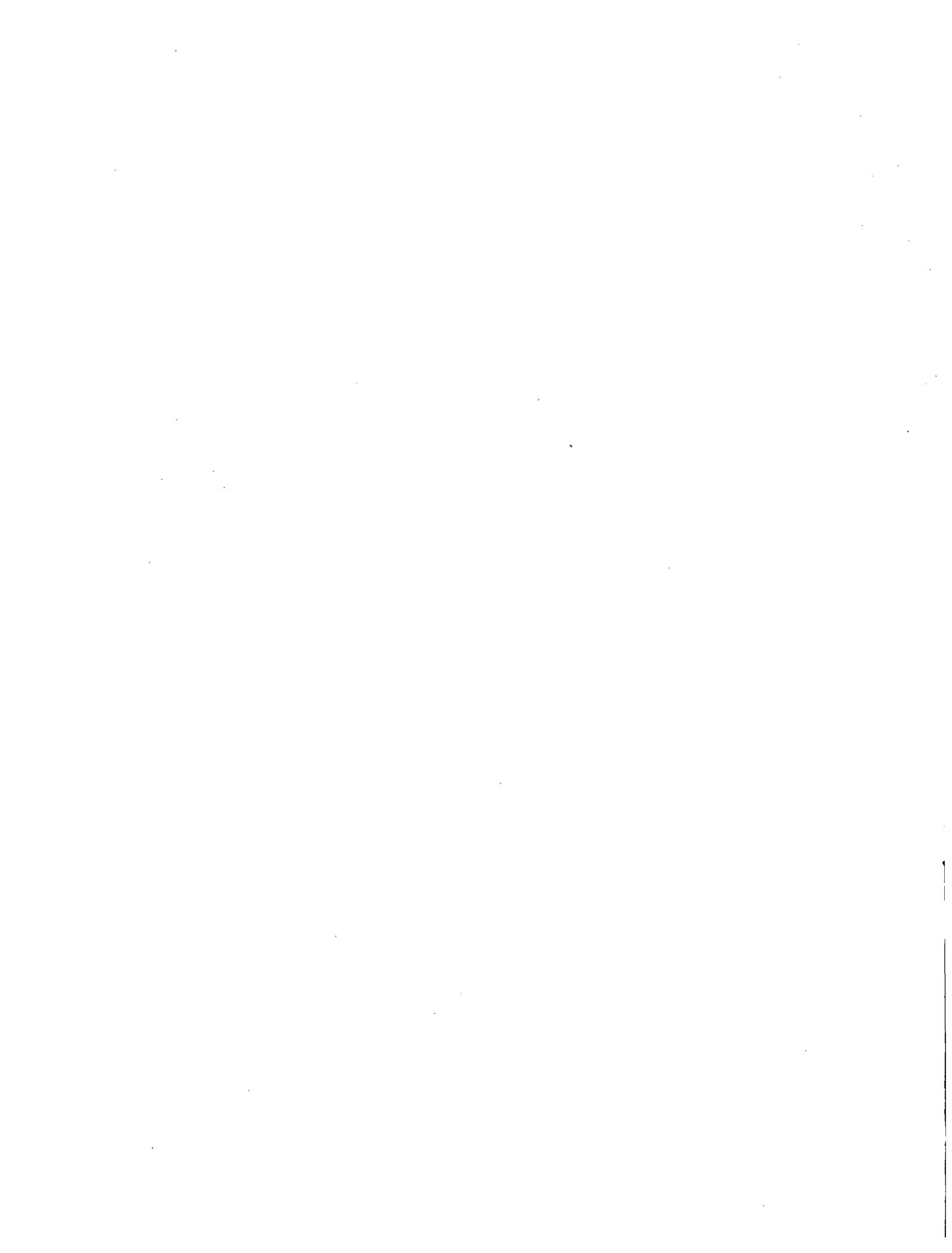
1 *Source material*—Uranium or thorium, or any combination thereof, in any physical or chemical
2 form; or ores that contain by weight one-twentieth of 1 percent (0.05%) or more of uranium,
3 thorium, or any combination thereof. Source material includes depleted uranium and natural
4 uranium, but not special nuclear material.
5

6 *Special nuclear material (SNM)*—Plutonium, uranium-233, and uranium enriched in the isotope
7 233 or 235; any other material that the NRC, pursuant to the provisions of Section 51 of the
8 Atomic Energy Act of 1954 (as amended) determines to be SNM; and any material artificially
9 enriched with any of the foregoing materials, but not source material.
10

11 *U.S. Government owned*—Government owned nuclear material is material that, while used by
12 a licensee as part of their activities, is actually an asset owned by a federal government agency
13 such as DOE. These materials may be bulk materials, discrete radiation sources, or finished
14 products. Such materials may represent a lease or loan arrangement with a government
15 agency. Government owned materials are typically represented by a "G" owner code on
16 shipping information (i.e. DOE/NRC Form 741) and inventory documentation (DOE/NRC 742
17 and 742C). One way a licensee can make a determination that nuclear material in their
18 possession is government owned, is to review the licensee's DOE/NRC Form 741 form
19 documentation listing the original receipt of the material. If such material is government owned,
20 it will have a "G" owner code entered on the licensee's portion of the form.
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53

APPENDIX E
INVENTORY CHANGE TYPE CODES



IAEA INVENTORY CHANGE TYPE CODES

The accounting entry type codes used on Material Balance Reports (MBRs) consist of two digits. In the following pages the number(s) in parentheses following the alphabetic code represent the MBR line for which the transaction entries correspond. The standard inventory changes and other entry type are listed below. In MBRs, corresponding the same codes denote consolidated entries; i.e., the sums of all individual operations with the same code over the material balance period. In addition, MBRs include entries related to inventory data and adjustments not reported on transaction reports.

MBR Code (Line Number)	EXPLANATION
RF (11, 13, 30, 38, 39)	Nuclear material imported into the United States (Receipt Foreign)
RD (11, 13, 30, 38, 39)	Domestic receipt of nuclear material from another domestic RIS (Receipt Domestic)
RN (11, 13, 30, 38, 39)	Domestic receipt of nuclear material from activity not subject to 10 CFR Part 75
NP (21)	Production of fissionable material in a reactor (Pu, U ²³³)
SF (42, 43, 51, 58, 59)	Export of nuclear material out of the United States
SD (42, 43, 51, 58, 59)	Domestic transfer of nuclear material from another Domestic RIS
SN (42, 43, 51, 58, 59)	Domestic transfer of nuclear material from a facility subject to 10 CFR Part 75
LD (74)	Normal operational loss/measured discard; i.e., loss of a measured or estimated (on the basis of measurement) quantity of nuclear material from processing which has been disposed of in such a way that it is not suitable for further nuclear use
EN ED NE ND DE DN EE (22, 71)	Category Change - The quantity of uranium which has changed category as a result of blending, enrichment, depletion, or burnup. The first letter denotes the original, the second letter the resulting category (E=enriched, N=natural (or "normal"), D=depleted uranium, EE=change of enrichment). The material type codes should be those for both the original and the resulting material. The weight data should be provided both for the originating and for the resulting category. These entries should be consolidated into the material balances for both categories. For any of these changes line pairing is required, one line denotes the original material and the other denoting the resulting material.
(22, 71)	Enrichment facility may use the 22-71 combination to report changes in material type associated with enrichment activities for material types 10, 20, 81, and 89 or as directed by the NRC.

1
2
3
4
5
6
7
8
9
10
11
12
13
14

MBR Code (Line Number)	EXPLANATION
MF (77)	Inventory difference: this should be calculated as the difference between the book inventory and the ending physical inventory. Must not be used by Reactors
PB (N/A)	Beginning physical inventory: it should be equal to the ending physical inventory of the previous MBR relating to the same material
BA (83)	The algebraic sum of the beginning physical inventory and of the inventory changes over the period, adjusted to take account of the shipper-receiver differences
PE (N/A)	The sum of all measured and derived batch quantities of nuclear material on hand on the date of the physical inventory taking. These entries should be consolidated
RAXX (N/A)	<p>Applicable to licensees subject to the 10 CFR Part 75 only - The quantity that has to be added to the rounded sum to make it equal to the sum of the rounded terms. A rounding adjustment is made to an entry in the MBR of which the IAEA has been informed differently through Inventory Change Reports (ICRs) and Physical Inventory Lists (PILs), in order to bring the MBR entry into agreement with the corresponding figures established on the basis of ICRs and PILs. In the case of the book inventory and the inventory difference (ID) or material unaccounted for (MUF), the following formulae should be used respectively.</p> <p>$RABA = PB + ICR_{MBR} - DI - BA$, and</p> <p>$RAMF = BA - PE - MF$</p> <p>where ICR_{MBR} is the sum of the consolidated inventory changes as reported in the MBR, taken with the appropriate sign if they represent decreases. All other notations are as defined for this data element.</p> <p>No rounding adjustment is needed for the beginning physical inventory.</p> <p>The rounding adjustment should be coded RAXX where XX stands for the code of the entry to which the rounding adjustment pertains, e.g., RALN means a rounding adjustment to the consolidated entry on the nuclear loss.</p>

BIBLIOGRAPHIC DATA SHEET

(See instructions on the reverse)

NUREG/BR-0007 Rev 6

2. TITLE AND SUBTITLE

Instructions for the Preparation and Distribution of Material Status Reports
Draft Report for Comment

3. DATE REPORT PUBLISHED

MONTH

YEAR

March

2007

4. FIN OR GRANT NUMBER

5. AUTHOR(S)

Brian G. Horn, NMSS
Chris Graves, NSIR

6. TYPE OF REPORT

7. PERIOD COVERED (Inclusive Dates)

8. PERFORMING ORGANIZATION - NAME AND ADDRESS (If NRC, provide Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address; if contractor, provide name and mailing address.)

Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

9. SPONSORING ORGANIZATION - NAME AND ADDRESS (If NRC, type "Same as above"; if contractor, provide NRC Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address.)

Same as above

10. SUPPLEMENTARY NOTES

11. ABSTRACT (200 words or less)

NRC regulations require each licensee who is authorized to possess special nuclear material (SNM) or obligated source material to prepare and submit, in computer-readable format, reports concerning SNM received, produced, possessed, transferred, consumed, disposed of, or lost. This NUREG contains the reporting instructions for licensees to follow in making these reports.

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

Nuclear Materials Management and Safeguards System
NMMSS
Material Status Report
Physical Inventory Listing
DOE/NRC Form 742
DOE/NRC Form 742C

13. AVAILABILITY STATEMENT

unlimited

14. SECURITY CLASSIFICATION

(This Page)

unclassified

(This Report)

unclassified

15. NUMBER OF PAGES

16. PRICE



Federal Recycling Program

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

OFFICIAL BUSINESS