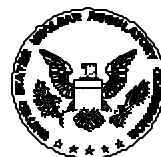


Instructions for Completing Nuclear Material Transaction Reports

(DOE/NRC Forms 741 and 740M)

Effective Date: October 1, 2003

**Issued by the
U.S. Nuclear Regulatory Commission
Office of Nuclear Security and Incident Response
Washington, DC 20555-0001**



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ABSTRACT

NRC regulations require licensees who ship, receive, or adjust their physical inventory of source or special nuclear material to document and report such activities. The reports are submitted using the DOE/NRC Form 741. Licensees may need to provide additional information on some imports or exports of source or special nuclear material. The additional information is reported using DOE/NRC Form 740M. This NUREG contains instructions for preparing these forms.

Paperwork Reduction Act Statement

The information collections contained in this NUREG are covered by DOE/NRC Forms 741 and 740M, which were approved by the Office of Management and Budget, approval numbers 3150-0003 and 3150-0057.

Public Protection Notification

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.

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ABBREVIATIONS

ADP	automated data processing
ANSI	American National Standards Institute
AL	accidental loss
CFR	Code of Federal Regulations
CODE 10	Chapter 10 of the subsidiary arrangement to the U.S./IAEA Safeguards Agreement
DOD	Department of Defense
DOE	Department of Energy
DOS	Department of State
EURATOM	European Atomic Energy Commission
ekg	effective kilogram
FA	Facility Attachment
GDP	gaseous diffusion enrichment plant
gm or g	gram
HEU	highly enriched uranium
IAEA	International Atomic Energy Agency
ICR	Inventory Change Report
ICT	inventory change type
ID	inventory difference
INFCIRC	IAEA Information Circular
INFCIRC-288	U.S./IAEA Safeguards Agreement
INMTS	International Nuclear Material Tracking System
IPELTS	International Programs Export License Tracking System
kg	kilograms
KMP	key measurement point
LE	limit of error
LEU	low-enriched uranium
MBA	material balance area
MBR	Material Balance Report
MC&A	material control and accounting
MMDDYYYY	month, day, year
MD	measured discards
MSR	Material Status Report
MT	material type

NDA	nondestructive assay
NMMSS	Nuclear Materials Management and Safeguards Systems
NRC	Nuclear Regulatory Commission
NSI	Nuclear Security Information
NSIR	Nuclear Security and Incident Response
OMP	other measurement point
PIL	Physical Inventory List
PIT	physical inventory taking
Pu	plutonium
RD	Restricted Data
RIS	reporting identification symbol
SAMS	Safeguards Management Software
SNM	special nuclear material
SRD	shipper-receiver difference
TFA	Transitional Facility Attachment
TJ	Transaction Journal
U	uranium
UK	United Kingdom
U.S. GOVT	United States Government
WR	Former Soviet Union Weapons Material
WT%	weight percent (of isotope)

U.S. NUCLEAR REGULATORY COMMISSION INSTRUCTIONS FOR COMPLETING NUCLEAR MATERIAL TRANSACTION REPORTS

DOE/NRC Form 741, “Nuclear Material Transaction Report,” and DOE/NRC Form 740M, “Concise Note”

1 PURPOSE AND SCOPE

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

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

DOE requires all NRC licensees to report to NMMSS all receipts, transfers, and inventories of U.S. GOVT-owned, loaned, or leased material in their possession. A DOE/NRC Form 742, “Material Balance Report,” and a DOE/NRC Form 742C, “Physical Inventory Listing,” must be filed to report quantities of 0.5 or greater of the reporting unit specified in the DOE Manual M 474.1-2. Reports to NMMSS for all U.S. GOVT-owned, -loaned, or -leased material are required to follow the U.S. GOVT’s reporting requirements as specified in DOE Manual M 474.1-2, “Nuclear Materials Management and Safeguards System Reporting and Data Submission.”

1.1 Transaction Data

The DOE/NRC Form 741, “Nuclear Material Transaction Report,” is the means for entering transaction data into the NMMSS. DOE/NRC Form 741 must be completed in accordance with the instructions in this NUREG and must be submitted in computer-readable format. Instructions for creating the computer-readable submittal are found in NMMSS Report D-24, “Personal Computer Data Input for NRC Licensees.”

DOE/NRC Form 741 is used to report physical transfers of nuclear materials between facilities. The report is also used to convey information on transactions such as inventory corrections that otherwise increase or decrease obligation balances or nuclear material categories within a facility.

The NMMSS relies heavily on the quality of the data reported by the facilities involved in nuclear activities. The data submitted to the NMMSS are subject to evaluation according to the restrictions placed on nuclear activity by the policies of various governing agencies of the United

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

States. After being verified as acceptable within the restrictions of the system, the data are entered into the NMMSS database.

NRC licensees must provide a DOE/NRC Form 741 to NMMSS in a computer-readable format following the instructions in this NUREG and NMMSS Report D-24. Both the shipper and the receiver are required to submit DOE/NRC Form 741. The receiver should confirm that the quantity received is consistent with the shipper's report. When significant shipper-receiver differences (SRDs) are identified, they must be resolved and their root causes corrected. The regulatory intent is to require material control and accounting (MC&A) systems to promptly detect and resolve all significant SRDs. Comparisons of shippers' and receivers' reports are necessary both to confirm the acceptability of shippers' and receivers' values for establishing the book accounting amounts for received material and to detect unacceptable shippers' or receivers' values. Comparisons typically involve item verification, seal integrity, gross weights, nondestructive assay (NDA) measurements (if appropriate), and destructive measurements (if appropriate).

1.2 Regulatory Authority

Title 10 of the U.S. Code of Federal Regulations (10 CFR) sets forth reporting requirements for specified activities as follows.

Reporting transactions for special nuclear material (SNM):

NRC regulations 10 CFR 70.54, 72.78, 74.15, 75.34, 76.113, 76.115, 76.117, and 150.16 require, in part, that each licensee who transfers or receives SNM of any origin must complete, in computer-readable format, a DOE/NRC Form 741. This should be done in accordance with instructions in this NUREG document whenever the licensee or certificate holder transfers or receives a quantity of special nuclear material of 1 gram or more contained U²³⁵, U²³³, or plutonium.

Reporting transactions for source material:

NRC regulation 10 CFR 40.64(a) states, in part, that except as specified in paragraphs (d) and (e) of that section and 10 CFR 150.17, each licensee must complete and distribute a DOE/NRC Form 741 when the licensee in any manner transfers, receives or adjusts the inventory, of source material of foreign obligations by 1 kilogram or more or imports or exports 1 kilogram of source material. The DOE/NRC Form 741 must be completed in computer-readable format in accordance with instructions in this NUREG and in NMMSS Report D-24.

Reporting transactions for source material or SNM in accordance with an agreement with the International Atomic Energy Agency (IAEA):

NRC regulation 10 CFR 75.31 requires licensees to complete and distribute DOE/NRC Form 741 for all source or SNM inventory changes, including shipments, receipts, onsite gains and losses, and any other inventory adjustments. These reports must be in computer-readable format and must be based on the records kept in accordance with 10 CFR 75.22, 75.31, 75.32, 75.33, 75.34, and 75.35.

Compliance with these reporting requirements is achieved by completing a DOE/NRC Form 741 and transmitting it in computer-readable format following the guidance in this NUREG and in NMMSS Report D-24.

In addition, the submission of DOE/NRC Form 741 is normally required as a matter of contract or lease administration for all Government-owned nuclear material transferred (see DOE Order, Series 5600, and DOE Manual M 474.1-2, "Nuclear Materials Management and Safeguards System Reporting and Data Submission").

1.3 Reporting/Distribution Requirements

Reports are required whenever nuclear material in the types and amounts stated in the preceding section moves between locations or operations that have been assigned different reporting identification symbols (RISs) and whenever SNM and source material inventories change. The nuclear material change data (including burnup, production, measured discards, and decay) should be documented and reported to NMMSS before or at the same time as the physical inventory taking, unless another arrangement is authorized by the NRC.

The shipper initiates a DOE/NRC Form 741. If the licensee is involved in a transfer of material with a party that is not required to prepare a DOE/NRC Form 741, the licensee must prepare and submit both the shipper's and the receiver's section of the Form 741. The most common situation is when a domestic facility is involved in export/import activities. The domestic facility must obtain the information necessary to complete the Form 741.

Reports of physical shipments between RISs must show the actual movement of material. In addition, any information on the material must also be reported. In particular, the obligation of material by a foreign entity must follow the physical movement of material between RISs. The exchange of obligations between RISs with no physical movement of material is reported by using action codes X and Y.

DOE/NRC Form 741 must be submitted to NMMSS in the prescribed computer-readable format. It was formerly submitted in paper.

1.4 Automated Methods for Submitting Data to the NMMSS

There are several automated methods:

(1) Telephonic Transfers

A licensee may submit the DOE/NRC Form 741 electronically by using a modem. To establish an electronic connection with the NMMSS, licensees must contact the NMMSS security officer to request establishment of a connection with the direct link. If the facility is a valid facility for the type of link requested (classified or unclassified), the security officer provides the requester with the appropriate forms to complete.

Upon receipt of the completed forms, the security officer creates a user ID and password and establishes an account for the facility. The user ID and password are then forwarded to the user facility along with a password acknowledgment form. The licensee signs the

acknowledgment form and returns it to the security officer who, then activates the user ID and password.

(2) Data submittals on diskettes

DOE/NRC Form 741 must be submitted in computer-readable format. NMMSS Report D-24 provides instructions on handling techniques, format requirements, and data submittals using diskettes.

(3) Safeguards Management Software (SAMS)

The SAMS is a miniature version of the Nuclear Materials Management and Safeguards System (NMMSS). This software allows the user to make edit checks, generate various reports, perform import and export transactions, and complete material balance and inventory data. The SAMS program with the appropriate formats and user prompts may be obtained from the NMMSS operator free of charge.

(4) New and Modified Methods of Transferring Electronic Data

New and modified methods of transferring electronic DOE/NRC Form 741 data to NMMSS may be authorized by the NRC. Confirmation of additional methods for the transfer of this data may be obtained by contacting the NMMSS operator.

1.5 Documentation and Distribution

The completed DOE/NRC Form 741, in computer-readable format, should be submitted to the NMMSS operator. Confirm the address and mechanism of providing data to NMMSS by calling the NMMSS operator. Note that specific submission instructions depend upon whether the Form 741 is classified or unclassified information. Additional distribution information is contained in Sections 2.2, 3.2, and 4.4 of this NUREG.

Any DOE/NRC Form 741 which is classified must be documented and handled in accordance with all pertinent security requirements. The same goes for any DOE/NRC Form 741 which is unclassified. Each person who is to receive a copy of the report must be verified as a qualified recipient prior to distribution. Please confirm the address prior to sending documents to NMMSS or other recipients. Also please formally provide classification guidance to NMMSS after a decision to classify, declassify, or make any change in previously submitted guidance.

2 GENERAL INSTRUCTIONS

2.1 Instructions for Completing DOE/NRC Form 741

If the DOE/NRC Form 741 is reporting an onsite gain or loss, review the instructions for block 6, (ACTION CODE), and the special instructions for the M action code in Section 3 of this NUREG before completing the form.

The numbered instructions below correspond to the numbered blocks on the DOE/NRC Form 741. Each shipper of reportable quantities of SNM or source material (refer to blocks 26n and 26q) must send a DOE/NRC Form 741 to the NMMSS operator and a copy to the receiver's

business address preferably on the same day the material is shipped and, in any case, no later than the close of business the next working day. In the case of spent fuel shipments, in accordance with 10 CFR 73.37, the date of shipment is "Safeguards Information" until 10 days after the shipment or the last shipment in a series of shipments is received. Therefore, the DOE/NRC Form 741 should be stamped "Safeguards Information" and handled according to 10 CFR 73.21.

Burials are reported when shipped. The burial site operator must prepare and transmit DOE/NRC Form 741 to NMMSS to document receipt and disposal. The electronic formats for the DOE/NRC Form 741 are given in NMMSS Report D-24.

2.1.1 Reporting Shipper's Data

The DOE/NRC Form 741 should be completed in accordance with the following instructions.

1. SHIPPER'S RIS² - Enter the shipper's RIS.
2. RECEIVER'S RIS² - Enter the receiver's RIS.
3. TRANSACTION NUMBER - Enter a number for the same shipper-receiver combination. Numbers in the series should be consecutive (i.e., no skipped numbers).
4. CORRECTION NUMBER - This block is used to identify a transaction which is an adjustment to a previously issued DOE/NRC Form 741. Leave this block blank for an original submission of a DOE/NRC Form 741. Use the numbers 1-9, consecutively, for adjustments. For corrections requiring only changes to NMMSS data (and not to the other party's data), letters (A, B, etc.) should be used instead of numbers. See Section 4.
5. PROCESSING CODE - Enter processing code A, C, D, or Z.
 - A Initial entry of data.
 - C Replacement of data. With the concurrence of the other party to the transaction, an entire data set 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, with the concurrence of the other party to the transaction.
 - Z Receiver's acceptance of other party's correction. This processing code can only be used with action code D. Receivers reporting per 10 CFR Part 75 may not use the Z code.
6. ACTION CODE - This block is used to identify the type of transaction being reported on the DOE/NRC Form 741.

² RISs are documented in NMMSS Reports D-2, D-3, and D-15.

6a. SHIPPER - Enter one of the following action codes:

- A The shipper is reporting a transaction that has taken place between the stated parties.
- C The shipper is adjusting the initial DOE/NRC Form 741 for the shipment or a previous adjustment to the same initial report, or acknowledging an adjustment originated by the receiver, or accepting and agreeing with the receiver's adjustment to the DOE/NRC Form 741. See Section 4 of this NUREG.
- M The shipper is reporting a one-party transaction or an adjustment to a one-party transaction (i.e., an onsite gain or loss of material due to burnup, production, measured discards, etc.). Such inventory changes are shown on DOE/NRC Form 742, "Material Balance Report." See Section 3 of this NUREG.
- R The shipper is identifying a one-party transaction to delete an obligated amount of material from the facility's inventory. This code is applicable only to Former Soviet Union Weapons (WR) material after the fresh low-enriched uranium (LEU) is irradiated in a reactor core.
- X The shipper is reporting an exchange of obligation that involves no physical movement of material.

6b. RECEIVER - Enter one of the following action codes:

- B The receiver is reporting that a shipment has been received and that the weights reported by the shipper on the DOE/NRC Form 741 were accepted without further measurement by the receiver.
- E The receiver is reporting that a shipment was received, that independent measurements were made, and that the values resulting from the independent measurements are being reported.
- D The receiver is adjusting the initial DOE/NRC Form 741 for the receipt of the shipment or a previous adjustment to the same initial report, or acknowledging an adjustment originated by the shipper, or accepting and agreeing with the shipper's adjustment to the DOE/NRC Form 741. See Section 4 of this NUREG.
- M The receiver is reporting a one-party transaction or an adjustment to a one-party transaction (i.e., an onsite gain or loss of material due to burnup, production, measured discards, etc.). Such inventory changes are shown DOE/NRC Form 742, "Material Balance Report." See Section 3 of this NUREG.
- N The receiver is reporting physical receipt of a shipment but will delay the quantity determinations for the shipment of material for more than 10 days but no more than 60 days for source, and LEU, or no more than 45 days for highly enriched uranium (HEU). At the end of this time the receiver will prepare a DOE/NRC Form 741 with a B or E action code to report the receiver's quantity determinations).

- Y The receiver is reporting an exchange of obligation that involves no physical movement of material.
7. DOCUMENTATION - Enter the number of pages if the submission is SECRET. This block is for paper copy submissions only.
 8. SHIPPER - Leave blank.
 9. RECEIVER - Leave blank.
 10. NUMBER OF DATA LINES - After completing of block 26 (SHIPPER'S DATA), or block 27 (RECEIVER'S DATA), enter the total number of detail lines in block 26 or 27.
 11. NATURE OF TRANSACTION - Leave blank.
 12. SHIPPED FOR ACCOUNT OF - Leave blank.
 13. SHIPPED TO ACCOUNT OF - Leave blank.
 14. TRANSFER AUTHORITY - Leave blank.
 15. EXPORT OR IMPORT TRANSFERS - For all export or import transfers, enter the NRC export or import license number, under which SNM or source material is being transferred. Where transfers are authorized by a general license, enter "Gen-Lic." In some cases the transfer may be exempt from licensing. If so, enter "Lic-Exempt." If several batches authorized by separate licenses are combined into one shipment, a separate DOE/NRC Form 741 must be filed for each license.
 16. MATERIAL TYPE AND DESCRIPTION - Leave blank.
 17. LINE NUMBER - Enter a two-digit sequential line number (01-99).
 18. COUNTRY OF OBLIGATION - Enter the two-character country or entity designation from Table 1 for the line numbers entered in block 17. See Appendix F of this NUREG for further instructions.
 19. MATERIAL TYPE - Enter the two-character material type to which the obligation is attached. Refer to Table 2 in Appendix F. (The field is expandable to three characters.) The only material types to be reported are 10, 20, 50, 70, 81, and 88.
 20. OBLIGATED ELEMENT WEIGHT - Enter the weight of the obligated amount of the element. The weight cannot be more than 11 numeric characters per D-24. See Appendix F for further instructions.
 21. OBLIGATED ISOTOPE WEIGHT - For Enriched Uranium Only - Enter the weight of the obligated amount of the isotope. The weight cannot be more than 11 numeric characters.
 22. ACTION DATE - * Follow the instructions below for blocks 22a through 22e.

- 22a. SHIPMENT (entry required by shipper) - Enter the date the nuclear material is shipped.
- 22b. SHIPPER'S CORRECTION (entry required by shipper) - If the document is an acknowledgment of or a correction to a previously issued transaction report, enter the date the correction is recorded or the acknowledgment made, as appropriate.
- 22c. RECEIPT (entry required by receiver) - Enter the date the nuclear material is received.
- 22d. RECEIVER'S MEASUREMENT (entry required by receiver) - Enter the date the nuclear material is measured by the receiver. This entry is required only if receiver's action code is E.
- 22e. RECEIVER'S CORRECTION (entry required by receiver) - If the document is an acknowledgment or a correction to a previously issued transaction report, enter the date the correction is recorded or the acknowledgment made, as appropriate.

In the case of imports or exports, licensees must complete a separate DOE/NRC Form 741 to document the foreign party action, including action dates in blocks 22a and 22c, as applicable.

- 23a. MISCELLANEOUS - Leave blank.
- 23b. CONCISE NOTE ATTACHED - Enter an X if a Concise Note is attached.
- 23c. UK REPORTABLE - Facilities reporting material transfers involving facilities in the United Kingdom (UK) must indicate in this block whether the shipment is reportable or non-reportable to the IAEA. Check YES for reportable or NO for non-reportable.
- 24. TOTAL GROSS WEIGHT - Enter the total gross weight of the shipment rounded to the nearest kilogram. An approximate or estimated gross weight rounded to the nearest kilogram is acceptable. Make no entry for M action code transactions, receipts, and correction documents.
- 25. TOTAL VOLUME (Waste Transfers Only) - For transfers of nuclear material to or from nuclear waste sites (i.e., if the shipper or receiver RIS begins with the letter V), enter the volume of the material to be buried, stated in cubic feet rounded to the nearest cubic foot. An entry in block 25 is not required for transfers to nuclear laundry services.
- 26. SHIPPER'S DATA - Shipper's data are entered in block 26. Receiver's data are entered in block 27. Receivers should review the instructions for block 27 before completing the block.

Shipper and receiver measurement data are entered on DOE/NRC Form 741 for each batch of material. For licensees reporting pursuant to 10 CFR Part 75 requirements or if the transfer is an import or an export, a batch is a portion of nuclear material that is handled as a unit for accounting purposes at a key measurement point (KMP) and whose composition and quantity are defined by a single set of specifications or measurements. The batch may be in bulk form or contained in a number of separate items. If the shipment is an export or is being reported pursuant to 10 CFR Part 75, fuel assemblies or loose rods or fuel pins must be listed separately with the identifying label serving as a

unique batch name. Fuel assemblies can be reported as “average” enrichment as long as the appropriate accounts (material types 10, 20, 81, etc.) are properly adjusted. Material being transferred may be listed on one line of DOE/NRC Form 741 if the material is all of the same material type, composition, ownership, and weight percent isotope (except as noted in the next paragraph). Material differing in any of these data elements must be listed on separate lines.

Two or more lines may be necessary to describe a single batch (e.g., spent fuel assemblies, mixed oxide fuel). If a batch consists of several types of nuclear material, several consecutive lines should be used to describe the batch. The batch name should be repeated on all lines used to describe a single batch. In block 26e the number of items is also repeated on all lines with the same batch name.

The above general rules for grouping or batching material for reporting purposes are also applicable to licensees reporting imports or exports pursuant to 10 CFR Part 40 or 74. Batch names are optional for other transactions reported pursuant to 10 CFR Part 40 or 74.

- 26a. BACK REFERENCE NUMBER - Enter the appropriate back reference number adjustments to previously completed DOE/NRC Form 741 documents.

Licensees must change the back reference numbers for action codes C and D and for action code M when reporting adjustments. Both the back reference change digit and the back reference line number must be reported.

The back reference change digit represents the change digit of the document being corrected for a nullifying entry and the change digit of the document now being completed for a correcting entry. For example, if the DOE/NRC Form 741 being corrected is the original, or if the line being entered represents an addition only, enter 0 (zero).

The back reference line number represents the line number of the line being corrected for a nullifying entry and the line number of the corresponding nullifying line for a correction entry. If the line being entered represents an addition only or represents a net change, enter 000000 (zeros).

- 26b. LINE NUMBER - In providing detailed measurement data, enter a line number. Beginning with 01 for the first line of detailed shipper's data, and increase the line number by one for each additional line of detailed shipper's data entered on the form (up to 99). When two or more lines of measurement data refer to a single batch, repeat the unique batch name for each line of the batch data. For example, repeat the batch name when different material types of multi-enrichment fuel rods are entered on separate lines or when UF₆ product material and UF₆ heel material in a cylinder are reported on separate lines.
- 26c. TYPE OF INVENTORY CHANGE - All changes to inventory that meet the reporting criteria must be reported on DOE/NRC Form 741. There are 29 inventory change type (ICT) codes listed in Appendix B. Many of these 29 codes are used by NMMSS for internal reporting activities. And need not be entered by the licensee in this block. Other codes, such as the codes for de-exemption use, de-exemption quantity, exemption use, exemption quantity, and termination of non-nuclear use are seldom used. These codes

are occasionally used for the facilities identified in the instructions for block 26h and are addressed as they occur through direct contact between the licensee and the NRC. There is a third group for which entry in this block is mandatory.

Appendix B explains the ICT codes and indicates whether they are to be entered in block 26c.

When the ICT code for a normal operational loss (LD), measured discard (TW), or (LA) accidental loss is used, additional information is required. There are four dispositions of measured discards for which are to be reported:

- A when material is discarded into the atmosphere
- G when material is discarded through ground effluents
- L when material is discarded into a pond or lagoon
- H when material is transferred to a holding area at the facility pending possible shipment offsite for disposal

When any of the above activities occurs, a DOE/NRC Form 741 should be prepared. The shipper should enter its RIS in the SHIPPER'S RIS block (block 1) and the same RIS in the RECEIVER'S RIS block (block 2), but append an A, G, L, or H, to the receiver's RIS as appropriate. For example, if a facility with RIS XYZ discards material to a lagoon, the transaction on the DOE/NRC Form 741 would be from XYZ to XYZL.

- 26d. IDENTIFICATION (ITEM/BATCH NAME) - Enter a name or number, or a combination of both, that identifies the reporting facility and the batch of material being shipped. If the licensee is reporting pursuant to 10 CFR Part 75, or if the transfer is an import or export, the shipper or receiver enters a name which identifies a unique portion of nuclear material handled as a unit for accounting purposes. For fuel assemblies pins and rods, the batch name should be the identification numbers of the fuel assembly pin or rod.

In the case of an import, the receiver must use the same batch name as the shipper provided the shipper's batch name conforms to the above specifications. If it does not, see the Concise Note instructions (Section 5).

- 26e. NUMBER OF ITEMS - Enter the number of similar items of which the line entry consists (e.g., cylinders, packs, drums, bird cages, bottles, tank vessels). When reporting fuel pins, rods, or plates, report the number of separate fuel pins, rods, or plates involved. When reporting fuel assemblies, report the number of complete assemblies represented on the line entry. In the case of transfer of bulk material, enter a 1. Leave blank if an M action code is used.

- 26f. PROJECT NUMBER - Leave blank.

- 26g. MATERIAL TYPE - Enter the appropriate SNM or source material type code from the list below.

<u>U.S. Code (Domestic Transfers)</u>	<u>IAEA Code (Imports/Exports)</u>	<u>Description</u>
10	D	Depleted uranium
20	EG	Enriched uranium
50	P	Plutonium
70	EK	U ²³³
81	N	Normal uranium
83 ³	Pu	Pu ²³⁸
88	T	Thorium
89	To be obtained from IAEA	Uranium in cascade

- 26h. COMPOSITION/FACILITY CODE - Enter the appropriate code describing the physical form (unencapsulated, encapsulated, etc.) and the chemical form of the material. See Appendix A.

If your installation has been notified by letter from the NRC, as provided in 10 CFR 75.11, that it has been identified under the U.S./IAEA Safeguards Agreement, enter the appropriate code from the list developed during the formulation and negotiation of your Facility Attachment (FA) or Transitional Facility Attachment (TFA) after the attachment has been provided to you under 10 CFR 75.8.

NOTE: In accordance with 10 CFR 75.11, any change in facility operations or processes that would result in any changes in, additions to, or deletions from the list should be communicated to the NRC in writing, to the extent provided in your license conditions, at least 70 days in advance of the changes so that new composition codes can be assigned.

- 26i. OWNER CODE - This code identifies 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

- 26j. KEY MEASUREMENT POINT (KMP) - This block is for reporting on a facility where nuclear material is in a form that may be measured to determine material flow or inventory. Codes for KMPs are identified in the FAs or TFAs developed for those facilities

³Report as Pu²³⁸ if the contained Pu²³⁸ is greater than 10% of total Pu by weight; otherwise, report as plutonium.

described in the instructions for block 26h. This data element only applies to licensees reporting pursuant to the requirements of 10 CFR Part 75. All other licensees should leave this block blank.

26k. MEASUREMENT IDENTIFICATION (see 26j) - This block applies only to licensees reporting pursuant to the requirements of 10 CFR Part 75 and to those facilities identified in the instructions for 26h. All other licensees should leave blank. This block indicates where and when the material was measured. It consists of three parts.

26k1. BASIS - Enter the pertinent one-character code from the following:

- N if the batch data are based on measurements made in an IAEA material balance area (MBA) other than the reporting MBA
- L if the batch data are based on measurements made in another IAEA MBA and have been previously reported by the reporting MBA in a DOE/NRC Form 741, "Nuclear Materials Transaction Report," or a DOE/NRC Form 742C, "Physical Inventory Listing"
- M if the batch data are based on measurements made in the reporting IAEA MBA and the data were not previously reported
- T if the batch data are based on measurements in the reporting IAEA MBA and have been previously reported for that MBA on a DOE/NRC Form 741 or a DOE/NRC Form 742C

26k2. OTHER MEASUREMENT POINT (OMP) - For batch data designated code M in block 26k1, enter the code of the KMP where measurements were made if it is different from the KMP indicated in 26j above. If the same, leave blank.

26k3. MEASUREMENT METHOD - If two or more measurement methods employed at the same KMP have a different measurement uncertainty, enter the code for the measurement method used, as identified in your FA.

26l. GROSS WEIGHT - Enter the gross weight of the line entry in kilograms of material shipped plus tare weight (packaging and shipping container).

26m. NET WEIGHT - Enter the weight of the material shipped, excluding tare weight, in grams for SNM and kilograms for source material.

26n. ELEMENT WEIGHT - Enter the weight of the contained SNM or source material rounded to the quantities reported below.

<u>Material</u>	<u>Reporting Units</u>
Plutonium or uranium enriched in U ²³⁵ or U ²³³	nearest whole gram
Pu ²³⁸	nearest 1/10 gram

Source material	nearest kilogram
-----------------	------------------

If the quantity to be entered is equal to or greater than 0.5 of the reporting unit, the quantity should be rounded up to the next whole reporting unit. If the quantity to be entered is less than 0.5 of the reporting unit, the quantity should be rounded down to the next whole reporting unit.

- 26o. ELEMENT LIMIT OF ERROR - Limits of error need only be reported by licensees who are authorized to possess at any time and location SNM in a quantity exceeding one effective kilogram and authorized to use SNM for activities other than those involved in the operation of a nuclear reactor licensed pursuant to 10 CFR Part 50; are involved in a waste disposal operation; or are authorized to possess sealed sources (under 10 CFR 70.58(e)).

Complete when the total shipment contains more than 50 grams of U^{235} , U^{233} , or plutonium, or any combination of these. Enter the limit of error for each element entry using the same weight units as in block 26n, except where the line entry represents a sealed plutonium-beryllium source (composition code 481); samples each of which has been determined by other means to contain less than 10 grams U^{235} , U^{233} , or plutonium (composition code 771); and reactor-irradiated fuels (composition code 375) involved in research, development, and evaluation programs in facilities other than irradiated-fuel reprocessing plants.

Limits of error are to be at the 95% confidence level, propagated by the uncertainties of the weight measurement, the chemical analysis, and the sampling method. Limits of error are not applicable to source material. Licensees making onsite transfers between two different RISs or within the same RIS are exempt from supplying limits of error data for the transfers. (Transfers between a license-exempt operation and a licensed operation at the same location are not considered onsite transfers, and limits of error are required.)

- 26p. WEIGHT % ISOTOPE - Enter the weight percent of the isotope U^{235} if the uranium is enriched or depleted in U^{235} . If plutonium, enter the weight percent of the isotope Pu^{240} . If Pu^{238} , enter the weight percent of the isotope Pu^{238} . Report weight percent to at least two, but not more than four, decimal places, depending upon the accuracy of the measurement method employed (for example, XX.XXXX%). For U^{233} , enter the parts per million of U^{232} . This block does not apply to natural uranium and thorium. Use separate lines to report material of different enrichments. The Pu and U^{235} content of irradiated fuel must be determined and reported upon removal of the spent fuel from the reactor core. Reactor operators may report the total nonfissile isotope instead of Pu^{240} in this block for spent fuel if the computer codes the operator uses have this limitation.
- 26q. ISOTOPE WEIGHT - Enter the isotope weight. If enriched uranium or U^{233} , enter weight to the nearest gram of U^{235} or U^{233} as appropriate. If plutonium, enter the sum of Pu^{239} and Pu^{241} to the nearest gram. If Pu^{238} , enter the weight of the isotope Pu^{238} to the nearest 1/10 of a gram. For depleted uranium, enter the isotope weight to the nearest kilogram. Make no entry for other source material.

If the quantity to be entered is equal to or greater than 0.5 of the reporting unit, the quantity should be rounded up to the next whole reporting unit. If the quantity to be entered is less than 0.5 of the reporting unit, the quantity should be rounded down to the next whole reporting unit.

- 26r. ISOTOPE LIMIT OF ERROR - Limits of error need only be reported by licensees who are authorized to possess at any one time and location SNM in a quantity exceeding 1 effective kilogram and authorized to use such SNM for activities other than those involved in the operation of a nuclear reactor licensed pursuant to 10 CFR Part 50; who are involved in a waste disposal operation; or who are authorized to possess sealed sources (10 CFR 70.58(e)).

Complete this block when the total shipment contains more than 50 grams of U^{235} , U^{233} , or plutonium or any combination of U^{235} and plutonium. Enter the limit of error for each isotope entry using the same weight units as in block 26n, except where the line entry represents a sealed plutonium-beryllium source (composition code 481); samples each of which has been determined by other means to contain less than 10 grams U^{235} , U^{233} , or plutonium (composition code 771); or reactor-irradiated fuels involved in research, development, and evaluation programs in facilities other than irradiated-fuel reprocessing plants.

Limits of error are to be at the 95% confidence level, propagated by the uncertainties of the weight measurement, the chemical analysis, the isotopic analysis, and the sampling method.

Limits of error are not applicable to source material.

- 26s. SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED - If submitted on paper, the report must be signed by an authorized representative of the licensee. Otherwise, enter the date submitted. 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.

Proprietary information must be included when necessary to provide an adequate response. An application to withhold such information from public disclosure may be made and will be dispositioned in accordance with the provisions of 10 CFR 2.790. If any of this information is of particular sensitivity, a request may be made that such information not be transmitted to the IAEA. Such a request must refer to, and must conform with 10 CFR 75.12.

2.1.2 Reporting Receiver's Data

Each receiver of reportable quantities of special nuclear material or source material must acknowledge receipt of shipments in accordance with the following instructions:

- If the receiver plans to accept the shipper's measurement data without making independent measurements (B action code), the receiver must, within 10 days of receipt of the material, submit a DOE/NRC Form 741. There are two options for filling out the form:

- (1) complete blocks 1 through 25 and put a zero (0) in block 10, or
- (2) complete blocks 1 through 25, enter the shipper's values in block 26, and repeat the shipper's values in block 27.

Facilities reporting pursuant to 10 CFR Part 75 must use the second option. Dispatch the form in accordance with the instructions in Section 2.3.2.

- If the receiver makes independent measurements (E action code), the receiver must, within 10 days of receipt of the material:

- (1) complete blocks 1 through 25, enter the shipper's values in block 26, and complete blocks 27a through 27s of the DOE/NRC Form 741.

- (2) dispatch the form in accordance with the instructions in Section 2.3.2.

- If the receiver intends to make independent measurements within 60 days for source material or LEU, or 45 days for HEU (N action code), unless an exemption is authorized by NRC, the receiver shall, within 10 days of receipt of the material:

- (1) complete blocks 1 through 25, enter the shipper's values in block 26, and complete blocks 27a through 27s of the DOE/NRC Form 741.

- (2) dispatch the form in accordance with the instructions in Section 2.3.2; and

- (3) after independent measurements are made, follow the instructions for reporting a B or E action code. If measurements are delayed, they must be completed and reported on DOE/NRC Form 741 within 60 days for source material and LEU and within 45 days for HEU after the receipt of each shipment, except in the case of receipts of scrap and irradiated material.

In the case of a scrap processor receiving several shipments of scrap which are accumulated and processed together, the recovered quantity of material must be prorated to the specific transmittal documents and line entries to maintain the one-to-one correspondence between shipper's and receiver's data.

27. RECEIVER'S DATA - Fill in the receiver's data blocks as follows.

27a. BACK REFERENCE NUMBER - See the instructions for block 26a.

27b. LINE NUMBER - See 26b.

27c. TYPE OF INVENTORY CHANGE - See 26c.

- 27d. IDENTIFICATION (ITEM/BATCH NAME) - See 26d.
- 27e. NO. OF ITEMS - See 26e.
- 27f. PROJECT NUMBER - See 26f.
- 27g. MATERIAL TYPE - See 26g.
- 27h. COMPOSITION/FACILITY CODE - See 26h.
- 27i. OWNER CODE - This code describes the material ownership at the time it comes into the receiver's possession. See 26i.
- 27j. KEY MEASUREMENT POINT - See 26j.
- 27k. MEASUREMENT IDENTIFICATION - See 26k.
- 27l. GROSS WEIGHT - See 26l.
- 27m. NET WEIGHT - See 26m.
- 27n. ELEMENT WEIGHT - See 26n.
- 27o. ELEMENT LIMIT OF ERROR - See 26o.
- 27p. WEIGHT % ISOTOPE - See 26p.
- 27q. ISOTOPE WEIGHT - See 26q.
- 27r. ISOTOPE LIMIT OF ERROR - See 26r.
- 27s. SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED - See 26s.

2.2 Preparation of DOE/NRC Form 741 in Computer-Readable Format

NMMSS Report D-24 provides instructions for preparing DOE/NRC Form 741 in computer-readable format as required for submittals.

2.3 Distribution of DOE/NRC Form 741

2.3.1 Shipper

Each shipper of reportable quantities of special nuclear material (SNM) or source material must dispatch a DOE/NRC Form 741, as described below, no later than the close of business the next working day after the shipment. In the case of spent fuel shipments, in accordance with 10 CFR 73.37, the date of shipment is "Safeguards Information" until 10 days after the shipment or the last shipment in a series of shipments is received. Therefore, the DOE/NRC Form 741 should be stamped "Safeguards Information" and handled according to 10 CFR 73.21.

Burials are reported when shipped. A DOE/NRC Form 741 must be prepared and transmitted to NMMSS by the burial site operator to document receipt and disposal.

Distribute the completed DOE/NRC Form 741 as follows:

- Provide a copy in a mutually agreeable format, to the other party in the transaction.
- Submit one copy to NMMSS. (See Section 1.5 for documentation and distribution of classified and unclassified reports.)
- Retain one copy for your file.

2.3.2 Receiver

Distribute the completed DOE/NRC Form 741 as follows:

- Submit one copy in computer-readable format to NMMSS. (See Section 1.5 for documentation and distribution of classified and unclassified reports.)
- Return one copy, in a mutually agreeable format, to the shipper.
- Retain one copy for your file.

3 INSTRUCTIONS FOR ONSITE GAINS AND LOSSES (M ACTION CODE)

3.1 Instructions for Completing DOE/NRC Form 741

When action code M is used, the DOE/NRC Form 741 should be completed in accordance with the following instructions.

1. SHIPPER'S RIS - Enter your RIS.
2. RECEIVER'S RIS - Same as in block 1.
3. TRANSACTION NUMBER - See the instructions for block 3 in Section 2.1.1 or contact the NMMSS operator for other options.
4. CORRECTION NUMBER - See the instructions for block 4 in Section 2.1.1.
5. PROCESSING CODE - See the instructions for block 5 in Section 2.1.1.
6. ACTION CODE - Enter M in 6a or 6b or both.
7. DOCUMENTATION - Enter the number of pages if the submission is SECRET. This block is for paper copy submissions only.
8. NAME AND ADDRESS OF SHIPPER - Leave blank.

9. NAME AND ADDRESS OF RECEIVER - Leave blank.
10. NUMBER OF DATA LINES - Enter the total number of detail line entries on the form.
11. NATURE OF TRANSACTION - Leave blank.
12. SHIPPED FOR ACCOUNT OF - Leave blank.
13. SHIPPED TO ACCOUNT OF - Leave blank.
14. TRANSFER AUTHORITY - Leave blank.
15. EXPORT OR IMPORT TRANSFERS - Leave blank.
16. MATERIAL TYPE AND DESCRIPTION - Leave blank.
17. LINE NUMBER - See the instructions in Section 2.1.1 for block 17.
18. COUNTRY OF OBLIGATION - See the instructions in Section 2.1.1 for block 18.
19. MATERIAL TYPE - See the instructions in Section 2.1.1 for block 19.
20. OBLIGATED ELEMENT WEIGHT - See the instructions in Section 2.1.1 for block 20.
21. OBLIGATED ISOTOPE WEIGHT - For Enriched Uranium Only - See the instructions in Section 2.1.1 for block 21.
22. ACTION DATE - Enter the date of the activity in at least one of blocks 22a through 22e. If more than one block is completed, all dates must be the same.
23. MISCELLANEOUS - Leave blank.
24. TOTAL GROSS WEIGHT - Leave blank.
25. TOTAL VOLUME - Leave blank.
26. SHIPPER'S DATA
 - 26a. BACK REFERENCE NUMBER - See the instructions in Section 2.1.1 for this block.
 - 26b. LINE NO. - See the instructions in Section 2.1.1 for this block.
 - 26c. TYPE OF INVENTORY CHANGE - See Section 2.1.1.
 - 26d. IDENTIFICATION (ITEM/BATCH NAME) - See Section 2.1.1.
 - 26e. NO. OF ITEMS - See Section 2.1.1.
 - 26f. PROJECT NUMBER - Leave blank.

- 26g. MATERIAL TYPE - See Section 2.1.1.
- 26h. COMPOSITION/FACILITY CODE - See Section 2.1.1.
- 26i. OWNER CODE - See Section 2.1.1.
- 26j. KEY MEASUREMENT POINT - See Section 2.1.1.
- 26k. MEASUREMENT IDENTIFICATION - See Section 2.1.1.
- 26l. GROSS WEIGHT - See Section 2.1.1.
- 26m. NET WEIGHT - See Section 2.1.1.
- 26n. ELEMENT WEIGHT - See Section 2.1.1.
- 26o. ELEMENT LIMIT OF ERROR - See Section 2.1.1.
- 26p. WEIGHT % ISOTOPE - Leave blank for ICT codes MF and EQ unless the material is enriched uranium. For ICT codes LN and TN, report the same weight % isotope as for the beginning of the inventory period. See the instructions in Section 2.1.1 for this block.
- 26q. ISOTOPE WEIGHT - See Section 2.1.1.
- 26r. ISOTOPE LIMIT OF ERROR - Leave blank.
- 26s. SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED - See Section 2.1.1.
27. RECEIVER'S DATA - See the instructions in Section 2.1.2 for block 27.

3.2 Preparation of DOE/NRC Form 741 in Computer-Readable Format

NMMSS Report D-24 provides instructions for preparing DOE/NRC Form 741 in computer-readable format as required for submittals.

3.3 Distribution of DOE/NRC Form 741

Distribute the completed DOE/NRC Form 741 as follows:

- Submit one copy in computer-readable format to NMMSS. (See Section 1.5 for documentation and distribution of classified and unclassified reports.)
- Retain one copy for your file.

4 INSTRUCTIONS FOR CORRECTING A DOE/NRC FORM 741 (C, D, AND M ACTION CODES or Z PROCESS CODE)

Adjustments are independent actions. Either the shipper or the receiver may initiate an

adjustment to a DOE/NRC Form 741 reporting the original shipment or receipt of material or an adjustment to any previous adjustment to the original. The other party is required to acknowledge that an adjustment was made, but not required to make the same adjustment to its records.

4.1 Originator

The originator of the “corrected copy” must:

- Complete blocks 1 through 25, as appropriate, referring to the copy of DOE/NRC Form 741 being corrected.
- Insert in block 26a or 27a of the “did-read” line, as appropriate, a three-digit back reference code. If the line of data has not been previously corrected, a zero (0) should be used. If previously corrected, the first digit is the correction number (block 4) from the DOE/NRC Form 741 being corrected. (If the line of data has been corrected several times, the most recent correction number should be used.) The next two digits are the line number (block 26b or 27b) on the DOE/NRC Form 741 being corrected.
- Complete the did-read line, blocks 26b through j and n through r or 27b through j and n through r, as appropriate, by duplicating the entire line being corrected from the DOE/NRC Form 741 being corrected and indicating the opposite sign (positive or negative) from the original one used in reporting the number of items (block e), element weight (block n), element limit of error (block o), isotope weight (block q), and isotope limit of error (block r).
- Insert in block 26a or 27a of the “should-read” line, as appropriate, a three-digit back reference code that references the corresponding did-read line. The first digit is the correction number of the document being completed; the next two digits are the line number of the corresponding did-read line.

Repeat this procedure until all lines requiring adjustment have been “backed out” and resupplied with the correct information.

The did-read and should-read for each line being adjusted should be paired (i.e., consecutive).

One or more changes can be made to each line. Only incorrect lines should be included in a correction report.

If adding a line to the original document, the back reference should be (000) (block 26a or 27a) and pairing is not done.

If a line previously reported is split into two or more lines, one of the should-be lines should back-reference the did-read line and all others should be considered new additions (000).

If a line is to be voided, only a did-read line should be used (no pairing). Examples of an initial report and subsequent correction reports are provided in Appendix C.

4.2 Receiver

Within 10 days, the facility receiving the corrected DOE/NRC Form 741 must either:

- submit a DOE/NRC Form 741 acknowledging the adjustment (which will close a transaction but will not affect the acknowledging party's values),
- submit a DOE/NRC Form 741 accepting the adjustment. This closes a transaction and applies the other party's adjustment to the acknowledging party's values.

There is no requirement for both parties to make the same quantity adjustments. However, if both parties choose to adjust on the same corrected DOE/NRC Form 741, they must both report the same number of entries and the material types must agree line for line.

4.3 Use of the Z Process Code

If the receiving party agrees to all changes for an action code C document, the receiving party may utilize process code Z and action code D. Submit a DOE/NRC Form 741 to report data in blocks 1, 2, 3, 4, 20, 22. The Z code should be entered in block 5b and action code D in block 6b, and block 22 should be completed. The Z process code may not be used by a licensee reporting per 10 CFR Part 75.

4.4 Distribution of Corrections to DOE/NRC Form 741

The originator should:

- Submit one copy, in a mutually agreeable format, to the other party in the transaction.
- Submit one copy to NMMSS. (See Section 1.5 for documentation and distribution of classified and unclassified reports.)
- Retain one copy for your file.

Upon receipt of a correction, distribute the completed DOE/NRC Form 741 as follows:

- Submit one copy to NMMSS. (See Section 1.5 for documentation and distribution of classified and unclassified reports.)
- Return one copy to the originator.
- Retain one copy for your file.

5 INSTRUCTIONS FOR COMPLETING DOE/NRC FORM 740M, "CONCISE NOTE"

These instructions apply to all licensees who have been notified by letter from the NRC, as provided in 10 CFR 75.11, that their installations have been identified under the U.S./IAEA Safeguards Agreement. FAs or TFAs for such installations may specify circumstances under which Concise Notes must be submitted to the IAEA as attachments to other reports. These

facilities should use DOE/NRC Form 740M to explain to the foreign state where the IAEA-required data items appear.

These instructions also apply to importers who for any reason cannot use the same batch name as the shipper. If the shipper fails to supply a batch name, the importer should supply a batch name and attach a Concise Note to that effect.

In some cases, it may be desirable to provide additional explanatory information with reports. DOE/NRC Form 740M, "Concise Note," is used to submit this information. A DOE/NRC Form 740M may be attached to a DOE/NRC Form 741, "Nuclear Material Transaction Report"; to a DOE/NRC Form 742, "Material Balance Report"; to a DOE/NRC Form 742C, "Physical Inventory Listing"; or to a stand-alone Concise Note for facilities reporting under 10 CFR Part 75. No classified information should be entered on DOE/NRC Form 740M.

The numbered blocks of the DOE/NRC Form 740M should be completed as follows:

1. NAME AND ADDRESS - Leave blank.
2. ATTACHMENT TO - Place a check mark or an X in the appropriate box to indicate whether this explanatory information will be attached to a DOE/NRC Form 741, 742, or 742C.
3. RIS - Enter the reporting identification symbol (RIS) to which the explanatory information in this report applies.
4. REPORTING PERIOD - Complete this block only if box 2B or 2C is checked, indicating that this Concise Note is attached to a DOE/NRC Form 742, "Material Balance Report," or a DOE/NRC Form 742C, "Physical Inventory Listing." Enter the beginning and ending dates of the reporting period as shown on the Form 742.
5. TRANSACTION DATA - Complete this block only if box 2A is checked, indicating that this DOE/NRC Form 740M is attached to a DOE/NRC Form 741, "Nuclear Material Transaction Report," or if a stand-alone Concise Note is submitted. Copy the requested data from the DOE/NRC Form 741. All entries in this block must be identical to those on the DOE/NRC Form 741. Fill in the blocks as follows.
 - 5A. SHIPPER'S RIS - Enter the RIS of the shipper.
 - 5B. RECEIVER'S RIS - Enter the RIS of the receiver.
 - 5C. TRANSACTION NUMBER - Enter the unique transaction number.
 - 5D. CORRECTION NUMBER - If the DOE/NRC Form 741 is a correction to a previous report, enter the correction number.
 - 5E. PROCESSING CODE - Insert the same code used in DOE/NRC Form 741.
 - 5F. ACTION CODE - If a Form 740M is used with a Form 741, enter the same action code as on Form 741, block 7; otherwise enter action code M.

6. REPORTING DATE - Complete this block if box 2A or 2C is checked. Copy the date shown on Form 741 or 742C.
7. This block contains the actual explanatory data and the other data necessary to link the explanatory data to the part of or parts of the report to which the data apply. Complete this block as follows.
 - 7A. LINE NO. - Enter consecutive numbers beginning with 1 for each explanatory reference.
 - 7B. ENTRY REFERENCE - If the explanatory information entered on this line of the DOE/NRC Form 740M applies to the entire Form 741, 742, or 742C, enter the words "WHOLE REPORT." If the explanation applies to the data on a specific batch on a Form 741 or 742C, copy the batch name exactly as it appears on the Form 741 or 742C. If the explanation applies to a specific material balance category on a Form 742, enter the two-digit number of the material balance category. Additionally, if the explanation applies to material balance categories 11, 30, 42, 43, or 51, enter the RIS shown on the relevant line of the Form 742. If the explanation applies to categories 22 or 71, enter the two-character ICT as shown on the relevant of the Form 742. If the Form 740M action code is M, enter "General."
 - 7C. TEXT OF CONCISE NOTE - Enter any 43 letters, numbers, or special characters per line. Up to 99 lines of text may be used for any one explanation.
8. SIGNATURE - The DOE/NRC Form 740M must be signed by an authorized representative of the licensee. See the instructions in Section 2.1 for block 26s.
9. TITLE - Enter the title of the person signing the form.
10. DATE - Enter the date the form was signed.

DOE/NRC Form 740M should be put into computer-readable format following the additional guidance in NMMSS Report D-24.

Copies of the Form 740M must be attached to, and distributed with, the DOE/NRC Form 741, 742, or 742C to which the Form 740M applies.

6 DOE REPORTING REQUIREMENTS FOR PROPRIETARY INTERESTS OF THE GOVERNMENT

NRC licensees are responsible for routinely reporting to NMMSS, all DOE-owned, -loaned, or -leased material in their possession as prescribed in DOE Orders Series 5630 and 470 (DOE Order M 474.1 and DOE Manuals M 474.1-1, "Control and Accountability of Nuclear Material," and M 474.1-2, "Nuclear Materials Management and Safeguards System Reporting and Data Submission").

7 REFERENCES

The Nuclear Materials Management and Safeguards System (NMMSS) documents listed below are referenced in the preceding pages. To request these documents, telephone the NMMSS operator.

"The DOE Directory of Reporting Identification Symbols," NMMSS Report D-2

"The NRC Directory of Reporting Identification Symbols," NMMSS Report D-3

"International Nuclear Facilities Codes Manual," NMMSS Report D-15

"Personal Computer Data Input for NRC Licensees," NMMSS Report D-24

"Transaction Composition Code Reference List," NMMSS Report D-25

"ANSI Codes," Report D-50A-109

APPENDIX A
COMPOSITION CODES

COMPOSITION CODES

The codes listed below are for use in completing blocks 26h or 27h on DOE/NRC Form 741. If your installation has been notified by letter from the NRC, as provided in 10 CFR 75.11, that it has been identified under the U.S./IAEA Safeguards Agreement, enter the appropriate code from the list developed during the formulation and negotiation of your Facility Attachment or Transitional Facility Attachment (after the document has been provided to you under 10 CFR 75.8).

Note: In accordance with 10 CFR 75.11, any change in facility operations or processes that would result in any changes to, additions to or deletions from the list should be communicated to the NRC in writing, to the extent provided in your license conditions, at least 70 days in advance of the changes so that new composition codes can be assigned. For additional composition codes see NMMSS Report D-25 and American National Standard Institute (ANSI) Codes Report D-50A-109.

UNENCAPSULATED (except scrap)

Code

032	U ₃ O ₈ (Oxide product
048	UO ₃ (Trioxide product)
770	Carbides
455	Other oxides product (For all oxides not otherwise identified)
064	Tetrafluorides (Tetrafluoride product)
083	UF ₆ (Hexafluoride product)
095	Enriching process
100	Hexafluorides—Commercial feed
101	Hexafluorides—Interplant Feed
102	Hexafluorides—in Enriching Process
103	Hexafluoride Product
104	Hexafluorides—Long-Term Storage
105	Hexafluorides—Non-USEC
106	DOE cascade feed

107	Uranium in cascades—Holdup
120	UF ₆ Feed
773	UF ₆ heels
363	In Reactor product
409	Nitrate Solutions product
786	Acetate Solutions product
701	Unalloyed Metal product
702	Alloyed Metal product
771	Samples and Standards
637	Sintered Products

UNENCAPSULATED SCRAP (for recovery)*+

375	Irradiated Recyclable Fuel
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WASTE (for disposal)

Waste material should be described by an appropriate scrap category.*

*American National Standard Institute codes for plutonium scrap may be used in lieu of these codes.

+Where a number of dissimilar items of scrap are put into the same container, use the composition code for the predominant scrap category.

ENCAPSULATED

- 291 Fabricated Fuel Elements (pins, rods, plates)
- 309 Fuel assemblies (Assembled items product)
- 481 Sealed sources (Fabricated Sources Product)

OTHER

- 776 Other Products
- E04 Miscellaneous Noncombustibles (Uranium)

Note: U/Th and Pu/U mixed oxide fuels should be reported either as fuel elements (code 291) or as fuel assemblies (code 309) as applicable.

Report the different material types in the mixed oxide fuels on separate lines.

APPENDIX B

IAEA INVENTORY CHANGE TYPE CODES FOR COMPLETING BLOCKS 26c AND

27c OF DOE/NRC FORM 741

IAEA INVENTORY CHANGE TYPE CODES

All inventory change type (ICT) codes on transaction reports consist of two alphabetic or numeric characters. 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 transaction reports, all transactions and operations are understood to be related to individual batches. 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.

Gains or losses of material which occur based on the total inventory or in which individual effects to inventories by country of obligation code cannot be determined, should be reported as a loss to all country obligation balances by applying a one to one ratio by percent of the country of obligation to the amount of inventory affected to the amount of inventory change. For example, if decay is reported for plutonium within a reactor and the plutonium balance represents several different country of obligation balances the following calculations would determine the amount of decay to apply to each country of obligation code balance.

	<u>Element</u>	<u>Isotope</u>
Amount of inventory for which decay applies	1,202, 239	950,947
Calculated decay for the period	998	998

Balance by Country Obligation Code

<u>OBLIGATION CODE</u>	<u>ELEMENT</u>	<u>ISOTOPE</u>	<u>% Ratio to Total Inventory</u>
33	200,000	158,196	$200,000/1,202,239 = .166 \times 100 = 17\%$
34	509,321	402,863	$509,321/1,202,239 = .424 \times 100 = 42\%$
32	<u>492,918</u>	<u>389,888</u>	$492,918/1,202,239 = .410 \times 100 = 41\%$
Total Pu Balance	1,202, 239	950,947	100%

Amount of decay to apply to each country of obligation code balance

33	$998 \times 17\% = 169.66$ rounded to the nearest gram = 170
34	$998 \times 42\% = 419.16$ rounded to the nearest gram = 419
32	$998 \times 41\% = 409.18$ rounded to the nearest gram = $\frac{409}{998}$

The following should also be followed used for the isotope balances.

TRANS. MBR CODE LINE	EXPLANATION	REQUIREMENT FOR BLOCKS 26c AND 27c
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RF (11, 13, 30, 38, 39)	Nuclear material imported into the United States (Receipt Foreign)	Make no entry
RD (11, 13, 30, 38, 39)	Domestic receipt of nuclear material from another domestic RIS (Receipt Domestic)	Make no entry
RN (11, 13, 30, 38, 39)	Domestic receipt of nuclear material from activity not subject to 10 CFR Part 74	Make no entry
NP (21)	Production of fissionable material in a reactor (Pu, U ²³³)	Entry required by licensee
DU (76)	Reapplication of safeguards in nuclear material previously exempted therefrom pursuant to Article 38 of the Agreement after being exempted based on use (Licensees subject to 10 CFR Part 75 only)	Entry required only after notification by NRC
DQ (76)	Reapplication of safeguards in nuclear material previously exempted therefrom pursuant to Article 38 of the Agreement after being exempted based on quantity (Licensees subject to 10 CFR Part 75 only)	Entry required only after notification by NRC
SF (42, 43, 51, 58, 59)	Export of nuclear material out of the United States	Make no entry
SD (42, 43, 51, 58, 59)	Domestic transfer of nuclear material from another Domestic RIS	Make no entry
SN (42, 43, 51, 58, 59)	Domestic transfer of nuclear material from a facility subject to 10 CFR Part 75 to a waste management facility	Entry required
SN (42, 43, 51, 58, 59)	Domestic transfer of nuclear material from a facility subject to 10 CFR Part 75 to a facility other than a waste management facility	Make no entry

TRANS. MBR CODE LINE	EXPLANATION	REQUIREMENT FOR BLOCKS 26c AND 27c
LN* (73)	Consumption of nuclear material due to its transformation into other elements or isotope(s) as a result of nuclear reactions (burnup)	Entry required by licensee
*NOTE: When calculating weight % isotope in the case of burnup or decay, report the same weight % isotope for decay and burnup as the weight % of the beginning inventory for the period.		
TN* (72)	Consumption of nuclear material due to its transformation into other elements or isotope(s) as a result of nuclear reactions (decay)	Entry required by licensee
*NOTE: When calculating weight % isotope in the case of burnup or decay, report the same weight % isotope for decay and burnup as the weight % isotope of the original inventory for the period.		
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	Entry required by licensee
TW (74)	Transfer to the retained waste category of measured nuclear material which is deemed to be irrecoverable, to be stored at the MBA and to be deleted from the inventory of the MBA	Entry required by licensee
FW (51)	Retransfer of material which has been stored at the MBA as retained waste to the nuclear material inventory. This applies whenever material in the retained waste category is removed from storage either for processing at the MBA or for retransfer from the MBA.	Entry required by licensee
EU (76)	Exemption of nuclear material from safeguards pursuant to Article 36 of the Agreement (Licensees subject to 10 CFR Part 75 only)	Entry required only after notification by NRC

TRANS. MBR CODE LINE	EXPLANATION	REQUIREMENT FOR BLOCKS 26c AND 27c
EQ (76)	Exemption of nuclear material from safeguards pursuant to Article 37 of the Agreement (Licensees subject to 10 CFR Part 75 only)	Entry required only after notification by NRC
TU (76)	Termination of safeguards on nuclear material pursuant to Articles 13 and 35 of the Agreement (Licensees subject to 10 CFR Part 75 only)	Entry required only after notification by NRC
LA (75)	Irretrievable and inadvertent loss of a known quantity of nuclear material as the result of an operational accident	Entry required by licensee
GA (75)	Nuclear material unexpectedly found to be present in the MBA, except when detected in the course of a physical inventory taking	Entry required by licensee
DI (N/A)	The difference between the batch quantity reported as received (always on shipper's data) and the quantity of the same batch as measured by the operator of the receiving MBA (Licenses subject to 10 CFR Part 75 only)	Make no entry
RM (N/A)	The quantity by which the batch mentioned in the entry is diminished in cases of rebatching (Licensees subject to 10 CFR Part 75 only)	Licensee entry required, if applicable
RP (N/A)	The quantity of material added from another batch to the batch mentioned in the entry (Licensees subject to 10 CFR Part 75 only)	Licensee entry required, if applicable

TRANS. MBR CODE LINE	EXPLANATION	REQUIREMENT FOR BLOCKS 26c AND 27c
EN ED NE ND DE DN EE (22, 71)	<p>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.</p> <p>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.</p>	Entry required by licensee
MF (77)	Inventory difference: this should be calculated as the difference between the book inventory and the ending physical inventory	Entry required by licensee
PB (NA)	Beginning physical inventory: it should be equal to the ending physical inventory of the previous MBR relating to the same material	Make entry required
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	Make entry required
PE (NA)	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	Make entry required

TRANS. MBR CODE LINE	EXPLANATION	REQUIREMENT FOR BLOCKS 26c AND 27c
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> $RABA = PB + ICR_{MBR} - DI - BA, \text{ and}$ $RAMF = BA - PE - MF$ <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>	Entry by licensee required only if applicable

TRANS. MBR CODE LINE	EXPLANATION	REQUIREMENT FOR BLOCKS 26c AND 27c
34 (30)	Receipts - Miscellaneous. Enter quantities of material received in two-party transactions where only receiver's data or receipts of quantities of material falling below the reporting level are reported and now cumulatively total 1 gram or more for SNM or 1 kilogram or more for source material. Examples include receipts of material (not reported elsewhere) from facilities that have not been assigned a reporting identification symbol, and receipts from licensees that are not required to document or report transactions.	Licensee entry required
37	Procurement by others. Enter quantities of material purchased by the facility for its own account from in-situ material which it had been holding or, material which the facility is processing for another licensee.	
54 (51)	Shipments - Miscellaneous. Enter quantities of material shipped in two-party transactions where only shipper's data are reported or shipments of quantities of material falling below the reporting level are reported and now cumulatively total 1 gram or more of SNM or 1 kilogram or more for source material. Examples are shipments of material (not reported elsewhere) from facilities that have not been assigned a reporting identification symbol and shipments from licensees that are not required to document or report transactions.	Licensee entry required
65	Rounding Bias	Make no entry

APPENDIX C

EXAMPLES OF DOCUMENTS CORRECTING SHIPPER AND RECEIVER DATA

(BLOCKS 26 AND 27)

EXAMPLES OF DOCUMENTS CORRECTING SHIPPER AND RECEIVER DATA (BLOCKS 26 AND 27)

EXAMPLE 1 - INITIAL REPORT

On May 16, 2002, shipper XXX transferred to receiver XXY fabricated fuel elements containing:

<u>Line</u>		<u>Element</u>	<u>Isotope</u>
1	natural uranium	2 kg	
2	1.7080% enriched uranium	5,429 g	93.00 g
3	2.0110% enriched uranium	8,220 g	65.00 g
4	2.2180% enriched uranium	5,469 g	21.00 g

On May 23, 2002, receiver XXY acknowledged receipt of the shipment and accepted the shipper's weights without further measurement.

These transactions were reported on XXX/XXY/2.

EXAMPLE 2 - CORRECTION 1

On July 30, 2002, the shipper corrected the element weights for lines 1 and 3 to reflect the adjusted element weights of 3 and 9220, respectively.

This correction was reported on XXX/XXY/2/1.

EXAMPLE 3 - CORRECTION 3

On December 31, 2002, the receiver reported an adjustment to the weight percent isotope on line 2 of the initial report.

This correction was reported on XXX/XXY/2/3.

EXAMPLE 4 - INITIAL REPORT (ACTION CODE M)

On September 30, 2002, facility XXX reported decay and production.

These inventory changes were reported on XXX/XXX/2.

EXAMPLE 5 - CORRECTION 1 TO ACTION CODE M

On March 31, 2002, facility XXX corrected the element and isotope weights on lines 3 and 4. In addition, the element and isotope weights on line 6 were corrected and three new lines was added.

EXAMPLE 6 - INITIAL REPORT

On May 30, 2002, shipper XXX transferred material to receiver RYYY.

EXAMPLE 7 - CORRECTION 1

On May 30, 2002, the shipper realized the export license number was incorrect (block 15). Correction one was issued to negate the values in block 26. The back reference number listed in block 26a is 001.

EXAMPLE 8 - CORRECTION 2

Correction 2 was issued showing the correct number in block 15. Block 26 values are restated as they were listed on the initial report. The back reference number listed in block 26a is 101.

Matching correction documents would be required for the receiving facility.

EXAMPLE 9 - INITIAL REPORT (with a single foreign obligation)

On January 1, 2002, shipper XXX transferred natural uranium to receiver YYY:

<u>Line</u>	<u>Element</u>	<u>Isotope</u>
1	natural uranium	12,008 kg

On January 1, 2002, receiver YYY acknowledged receipt of the shipment and accepted the shipper's weights without further measurement.

These transactions were reported on XXX/YYY/1.

EXAMPLE 10 - WR MATERIAL (no foreign obligation)

On January 1, 2002, shipper RYYY transferred enriched uranium to receiver YYY:

<u>Line</u>	<u>Element</u>	<u>Isotope</u>
1	UF ⁶ cylinder	1,500,000 kg 74,250

On January 7, 2002, receiver RYYY acknowledged receipt of the shipment and accepted the shipper's weights without further measurement.

These transactions were reported on RYYY/YYY/1.

EXAMPLE 11 - INITIAL REPORT (multiple foreign obligations)

On January 1, 2002, shipper RYYY transferred enriched uranium to receiver YYY:

<u>Line</u>	<u>Element</u>	<u>Isotope</u>
1	UF ⁶ cylinder	1,400,000 kg 61,600
2	UF ⁶ cylinder	1,450,000 kg 62,350
3	UF ⁶ cylinder	1,500,000 kg 66,000

On January 10, 2002, receiver YYY acknowledged receipt of the shipment and accepted the shipper's weights without further measurement.

These transactions were reported on RYYY/YYYY/2.

List of Examples:

- Example 1: DOE/NRC Form 741 - Initial report
- Example 2: DOE/NRC Form 741 - Correction 1 (shipper adjusting lines 01 and 03 of the initial transaction)
- Example 3: DOE/NRC Form 741 - Correction 3 (receiver adjusting line 02 of the initial report)
- Example 4: DOE/NRC Form 741 - Initial report (action code M)
- Example 5: DOE/NRC Form 741 - Correction 1 (action code M)
- Example 6: DOE/NRC Form 741 - Initial report
- Example 7: DOE/NRC Form 741 - Correction 1
- Example 8: DOE/NRC Form 741 - Correction 2
- Example 9: DOE/NRC Form 741 - Initial report (single foreign obligation)
- Example 10: DOE/NRC Form 741 - Receipt of WR material (no foreign obligation)
- Example 11: DOE/NRC Form 741 - Receipt of source material (with foreign obligation)

APPENDIX D

GLOSSARY

GLOSSARY

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

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

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

Concise Note—Additional nuclear material transaction, material balance, or inventory data supplied to the IAEA, in free text format, by facilities engaged in the import and/or export of nuclear materials and by facilities selected under the provisions of the Agreement between the United States of America and the IAEA for the application of safeguards in the U.S./IAEA Safeguards Agreement.

EURATOM—As of January 2002, an organization consisting of the following member countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

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

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

International Nuclear Materials Tracking System (INMTS)—A database and information support system used to manage information on the quantity and location of U.S.-supplied nuclear materials in foreign countries.

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

$$ID = (BI + A - R) - EI$$

where $(BI + A - R)$ is the book inventory.

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

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

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

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

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

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

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

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

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

APPENDIX E

**DOE/NRC FORM 740M, "CONCISE NOTE" (BLANK), AND
DOE/NRC FORM 741, "NUCLEAR MATERIAL TRANSACTION REPORT" (BLANK)**

Estimated burden per response to comply with this mandatory collection request: 45 minutes. This information is required to satisfy the provisions of the USIA/EA Safeguards Agreement. Send comments regarding burden estimate to the Records Management Branch (T-F 52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocenters@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0057), 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			2. ATTACHMENT TO: <input type="checkbox"/> A. DOE/NRC 741 <input type="checkbox"/> B. DOE/NRC 742 <input type="checkbox"/> C. DOE/NRC 742C			3. RIS		4. REPORTING PERIOD		
STREET ADDRESS			5. TRANSACTION DATA						FROM	TO
			A. SHIPPER'S RIS	B. RECEIVER'S RIS	C. TRANSACTION NUMBER	D. CORR. NUMBER	E. PC	F. AC	6. REPORTING DATE	
CITY	STATE	ZIP CODE								

[illegible]

10. DATE

PRINTED ON RECYCLED PAPER

[illegible]

APPENDIX F

SUPPLEMENTAL INSTRUCTIONS FOR COMPLETING BLOCKS 17, 18, 19, 20, AND 21 ON DOE/NRC FORM 741

SUPPLEMENTAL INSTRUCTIONS FOR COMPLETING BLOCKS 17, 18, 19, 20, AND 21 ON DOE/NRC FORM 741

1. INTRODUCTION

Special procedures must be used to implement some of the reporting requirements of the U.S. Bilateral Agreements for Peaceful Nuclear Cooperation. These Agreements for Cooperation are one means to satisfy Section 123 of the Atomic Energy Act of 1954 and allow the U.S. nuclear industry to trade with foreign countries/entities. The Agreements require that the U.S. track and report foreign-obligated nuclear materials and nuclear material produced from obligated material from these countries/entities. A foreign obligation is a commitment by one government to another to treat nuclear materials, nonnuclear materials, and equipment and components in a manner consistent with the Agreement signed between the two governments.

In addition to these Agreements for Cooperation, the U.S. is also required (pursuant to the U.S./Russian Agreement concerning the disposition of HEU extracted from nuclear weapons), to track and report to Russia the imports, exports, and use of Former Soviet Union down-blended highly enriched uranium. Although not a U.S. Bilateral Agreement for Peaceful Nuclear Cooperation, this Agreement contains similar reporting requirements and will be tracked as such. Facilities that are importers and/or exporters of nuclear material should also comply with the Agreement.

2. IMPORTS

For U.S. facilities importing nuclear material with foreign obligations, the relevant obligation information will be supplied by the appropriate Government agency [DOE, Department of State (DOS) or NRC] in advance of the receipt. DOE, DOS, or NRC will notify U.S. facilities exporting nuclear material with foreign obligations of the relevant obligation information in advance of the nuclear materials receipt at the facility. The notification will provide the information necessary to complete blocks 17 through 21, if applicable.

- a. For imports, the foreign obligation information can be (1) the country/entity from which the nuclear material was shipped and/or (2) the country/entity attaching "third-party obligations." In most cases, for imports from a country that has made the entire shipment subject to the Agreement, the total import quantity will be obligated. If only a portion of the shipment is subject to an Agreement (third-party obligation), that amount will be clearly specified on the documentation.
- b. The Government notification will supply the following information for the completion of blocks 17- 21: (1) the country/entity of obligation, (2) the material type, and (3) the amount obligated. See Table 1 below for country/entity codes. See Table 2 below for reportable obligated material types and quantities.

Table 1

<u>Obligation Code</u>	<u>Country/Entity</u>
31	Australia
32	Canada
33	EURATOM
34	Japan
35	People's Republic of China
36	Czech Republic
91	Australia and EURATOM
92	Canada and EURATOM
WR	Former Soviet Union Weapons

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

Table 2

Reportable Material Types (MTs) and Source and
Special Nuclear Material

<u>Type</u>	<u>Domestic Code</u>
Normal uranium	MT 81
Depleted uranium	MT 10
Thorium	MT 88
Plutonium	MT 50
Highly enriched uranium	MT 20 \geq 20%
Low-enriched uranium	MT 20 $<$ 20%
Uranium ²³³	MT 70

c. Completion of Obligation Information

Block 17: LINE NUMBER - The shipper will enter a sequential number (01 through 99) for each obligated country or material. If there is more than one separate obligation or more than one obligated material type, enter the appropriate numbers in the subsequent lines.

Block 18: COUNTRY OF OBLIGATION - For each line enter the code in Table 1 that represents the country/entity of obligation.

Block 19: MATERIAL TYPE - For each line enter the domestic code in Table 2 that represents the material obligated.

Block 20: OBLIGATED ELEMENT WEIGHT - For each line enter the weight obligated in the reportable quantity specified in Table 2.

Block 21: OBLIGATED ISOTOPE WEIGHT (For Enriched Uranium Only) - For each line of enriched uranium, enter the obligated isotope weight in grams. (Obligated U²³⁵ is restricted to uranium enriched to 5 percent or less, unless higher enrichment is authorized or approved by the U.S. GOVT.)

3. DOMESTIC TRANSFERS, INTERNAL TRANSACTIONS, AND EXPORTS

For U.S. facilities shipping or exporting material with foreign obligations, or for the reporting of onsite gains and losses, the obligations on the material must be stated as such in blocks 17-21.

- a. For domestic transfers, blocks 17 through 21 are filled out as for imports (Section 2 above). However, the obligation information will not be supplied by a government notification. The U.S. shipper will assign the appropriate obligations on the material, if any, and complete the line number, country/entity of obligation, material type, and obligated weight, if applicable. The U.S. receiver will complete the matching obligation information as assigned by the shipper.
- b. For internal transactions (i.e., burnup, decay, production, measured discards, accidental losses or gains, category changes, fission and transmutation, inventory differences, etc.), enter the line number, country/entity of obligation, material type, and obligated weights, if applicable, for the material.
- c. For exports, the U.S. shipper will complete both the shipper's and receiver's DOE/NRC Form 741. If the U.S. shipper is exporting foreign obligated material, the U.S. shipper will complete blocks 17 through 21 for each obligated country/entity or material exported.
NOTE: If the export requires an NRC export license, the license must specifically permit the export of that obligated material on the face of the license.