

# Instructions for Compleúing Nuclear Material Transaction Reports and Concise Note Forms 

(Forms DOE/NRC-741, 741A and 740M)

Issued by the Office of
Nuclear Material Safety and Safeguards

## TABLE OF CONTENTS

Page
I. PURPOSE AND SCOPE ..... 1
II. GENERAL PROCEDURES ..... 2
A. DOE/NRC Form 741 Blocks ..... 2
B. Distribution of DOE/NRC Form 741 or Facsimile ..... 18

1. Shipper ..... 18
2. Receiver ..... 18
III. PROCEDURE FOR CONTINUATION PAGE ..... 19
IV. PROCEDURE FOR ONSITE GAINS AND LOSSES ("M" ACTION CODE) ..... 19
A. DOE/NRC Form 741 Blocks ..... 19
B. Distribution of DOE/NRC Form 741 or Facsimile ..... 21
V. PROCEDURES FOR CORRECTIONS TO DOE/NRC FORM 741 OR FACSIMILE ..... 22
A. Correction of Blocks 1 through 23 ..... 22
B. Correction of Blocks 24 or 25 ..... 22
C. ..... 24
D. Distribution of Corrections to DOE/NRC Form 741 or Facsimile. ..... 24
VI. DOE Reporting Requirements for Proprietary Interests of the Government ..... 25
Appendix I - Listing of Identification Codes for U.S. Customs Ports ..... 26
Appendix II - Composition and Nature of Transaction Codes ..... 39
Appendix III - Supplemental Instructions for Completing Blocks $24 . J$ and $25 . J$ of $D 0 E /$ NRC Form 741 ..... 43
Appendix IV - Instructions for Completing DOE/NRC Form 740M for a Concise Note ..... 50
Appendix V - Inventory Change Type Codes ..... 54
Appendix VI - Sample Letter to Correct Header Information (Blocks 1 through 23) ..... 62
Appendix VII - Examples of Documents Correcting Shipper and Receiver Data (Blocks 24 and 25) ..... 64

The Nuclear Materials Management and Safeguards System (NMMSS) reports listed below are referenced in the following pages. To request the below listed manuals, telephone the NMMSS office in Oak Ridge, Tennessee, (615)576-2297.

International Nuclear Facilities Codes Manual NMMSS Report D-15
Transaction Composition Code Reference List
NMMSS Report D-25

# INSTRUCTIONS TO NRC AND AGREEMENT STATE LICENSEES FOR REPORTING NUCLEAR MATERIAL TRANSFERS ON DOE/NRC FORM 741 - NUCLEAR MATERIAL TRANSACTION REPORT AND DOE/NRC FORM 740M - CONCISE NOTE 

## U.S. NUCLEAR REGULATORY COMMISSION NUCLEAR MATERIAL TRANSACTION REPORT

I. PURPOSE AND SCOPE

The U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE) jointly utilize a Nuclear Materials Management and Safeguards System (NMMSS). Common reporting forms are used to minimize the reporting burden upon industry members required to provide nuclear material data to one or both agencies in accordance with prevailing regulations or contractual obligations. In this manner, the licensee is able to file one report and meet the reporting requirements of both NRC and DOE, rather than having to file different reports for each Agency-required response. Compliance with specific reporting requirements is monitored by the agency for which the specific data is required. The decision to report should be based on the total material shipped or received prior to rounding.

NRC Regulations ( $40.64,150.17$ ) require NRC and Agreement State specific licensees to complete and distribute DOE/NRC Form 741 for:

- Any source material (depleted uranium, natural uranium, or thorium) inventory changes, including shipments, receipts, onsite gains or losses or any other inventory adjustment, involving one kilogram or more of foreign origin source material. Imports and exports are to be reported regardless of origin.

NRC Regulation (75.31) requires NRC and Agreement State specific licensees to complete and distribute DOE/NRC Form 741 for:

- Any source material (depleted uranium, natural uranium, or thorium) inventory changes, including shipments, receipts. onsite gains or losses or any other inventory adjustment, involving one kilogram or more of source material of any origin.

NRC Regulations ( $74.15,75.34,150.16$ ) require NRC and Agreement State specific licensees to complete and distribute DOE/NRC Form 741 for:

- Any special nuclear material (SNM) inventory changes, including shipments, receipts, burnup, production, onsite gains or losses, inventory difference, or any other inventory adjustment, involving one gram or more of contained uranium-235, uranium-233, or plutonium, or any combination thereof.

Submission of DOE/NRC Form 741 is normally required as a matter of contract or lease administration for all DOE-owned nuclear material transferred,

## regardless of quantity (see DOE Orders, series 5600). A facsimile of

 DOE/NRC Form 741 may be used.Reports are required whenever nuclear material in the above types and amounts moves betweer locations or operations that have been assigned different Reporting Identification Symbols (RIS) by the NRC and/or DOE, and for the reporting of SNM and source material inventory changes. The frequency for reporting nuclear material loss data (including burnup, production, measured discards,* and decay) is as follows:

HEU and LEU fuel fabrication plants Power and research reactors; all others Source material
every 2 months
every 6 months
once per year

The form is initiated by the shipper except where a licensee receives material from or ships material to someone who is not required to prepare a DOE/ NRC Form 741 (for example, from or to a foreign source.) In these instances, the receiver/shipper must obtain all information from the foreign exporter/importer (either directly or through an agent of the exporter or of the licensee) necessary to complete the shipper's or receiver's portion of DOE/NRC Form 741; record both shipper's and receiver's information on DOE/NRC Form 741; attach a DOE/NRC Form 740 M , Concise Note, if required as described in Appendix IV. Distribute the form according to Section II.B, IV. 8 or V.D.

## CLASSIFIED REPORTS - DOCUMENTATION AND DISTRIBUTION

Any $00 E /$ NRC Form 741 which is classified "SECRET" must be documented in accordance with all pertinent security requirements and the RIS assigned to each person who is to receive a copy of the report must be entered under "Distribution of Copies." The RIS of Martin Marietta Energy Systems, Inc. ORGDP/Records Dept., P.O. Box 2003, Dak Ridge, Tennessee 37831, is QFA.

## II. GENERAL PROCEDURES

## A. DOE/NRC Form 741 Blocks

The numbered instructions which follow correspond to the numbered blocks on DOE/NRC Form 741 to be completed. The numbers in parentheses within the various blocks should be disregarded as they are used for data processing purposes and signify the data retained by the NMMSS. Each shipper of reportable quantities of special nuclear material or source material shall dispatch a DOE/NRC Form 741 with the shipment, a copy to Martin Marietta Energy Systems, Inc. and a copy to the receiver's business address on the same day the material is shipped or, in any case, no later than the close of business the next working day. In the case of spent fuel shipments, and in accordance with 10 CFR 73.37, the date of shipment is "Safeguards Information" until ten (10) days after the shipment or the last shipment in a series of shipments is received. Therefore, the Form 741 should be stamped "Safeguards Information" and handled according to 10 CFR 73.21.
*NOTE: Burials are reported when shipped.

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

1. SHIPPER'S RIS - If you are the shipper, enter your RIS in the "Shipper's RIS" block. In the case of an export, enter your IAEA material balance area code (MBA) in parentheses following your domestic RIS. ${ }^{1}$ If you are the receiver of an import, enter the shipper's IAEA MBA code in parentheses following the shipper's four-character foreign facility RIS. ${ }^{2}$
2. RECEIVER'S RIS - If you are the shipper of a domestic transfer, enter the receiver's RIS in the "Receiver's RIS" block. In the case of an import, enter your IAEA material balance area code (MBA) in parentheses following your domestic RIS. ${ }^{1}$. If you are the shipper of an export, enter the receiver's IAEA MBA code following the foreign receiver's four-character foreign facility RIS. ${ }^{2}$
3. TRANSACTION NUMBER - Enter a consecutive number for the same shipper-receiver combination in the "Transaction No." block. 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 adjustrient to a previously issued transfer document (741). Leave blank on the original submission of a 741 . Use number 1-9, consecutively, for adjustments. See Section V.
5. PROCESSING CODE - For NRC use only.
6. RESERVED - For NRC use only.
7. ACTION CODE - This block is used to identify the type of transaction event being reported on the 741. Enter one of the following:
"SHIPPER" block -
A - shipper is reporting its statement describing a transaction that has taken place between the stated parties.

C - shipper is adjusting the initial report (741) of 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 741. See Section V.
${ }^{1}$ IAEA MBA codes for all U.S. facilities can be derived by prefixing your domestic RIS with the letter "U", e.g., the domestic RIS "XYZ" would become "UXYZ".
${ }^{2}$ The IAEA MBA codes for foreign facilities and the Four-character foreign facility codes can be derived by referring to the INTERNATIONAL NUCLEAR FACILITIES CODES MANUAL (NMMSS Report D-15).

M - reporting a one-party transaction or an adjustment to a oneparty transaction, i.e., an onsite gain or luss of material due to burn-up, production, measured discards, etc., such as the inventory changes shown on material balance reports (DOE/NRC Form 742). See Section IV

## "RECEIVER" block -

B - receiver is reporting that a shipment has been received and that the weights reported by the shipper on the 741 were accepted without further measurement by the receiver.

E - receiver is reporting that a shipment was received and that independent measurements were made and that the values resulting from the independent measurements are being reported.
$D$ - receiver is adjusting the initial report (741) of 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 741. See section $V$.

M - reporting a one-party transaction or an adjustment to a oneparty transaction, i.e., an onsite gain or loss of material due to burn-up, production, measured discards etc., such as the inventory changes shown on material balance reports (DOE/NRC Form 742). See Section IV
$N$ - receiver is reporting physical receipt of a shipment but will be delaying the quantity determinations for the shipment of material for 10 to 30 days (at which time a 741 with a "B" or "E" action code is prepared to report the receiver's quantity decision).
$U$ - receiver is reporting physical receipt of a shipment of scrap or irradiated material but will be delaying the quantity determinations for the shipment of material for more than 30 days but less than 60 days (at which time a 741 with a "B" or "E" action code is prepared to report the receiver's quantity decision).
8. DATA CODE - For NRC use only.
9. NAME AND ADDRESS OF SHIPPER -
A. Enter shipper's organization name and address.
B. Enter shipper's license number.
C. Enter an Attention Line, if necessary.
D. Enter shipper's telephone number.

## 10. NAME AND ADDRESS OF RECEIVER -

A. Enter receiver's name and address.
B. Enter receiver's license number, if applicable.
C. Enter an Attention Line, if necessary
D. Enter receiver's telephone number.
11. NUMBER OF DATA LINES -

After completion of Block 24, "Shipper's Data," enter the total number of detail line entries of shipper's data in this block.
12. NATURE OF TRANSACTION -

DOE-Owned Material - Complete this block for DOE-owned special nuclear material or source material under DOE contracts or lease or loan agreements, material sold for or to DOE, material transferred pursuant to an enriching service agreement, or material donations to or from DOE.

Privately Owned Material - This block may be used to reflect a non-DOE transaction involving privately owned material. To do so, it is imperative that blocks $12,24.1$ and 25.1 be in agreement.

See Appendix II for a list of transaction codes to be entered here.
13. SHIPPED FOR ACCOUNT OF -

DOE-Owned Material - Complete this block if the special nuclear material or source material is DOE owned. Enter the RIS (Block 13b), and name and address of the person having lease or financial responsibility for the material. If the name and address are the same as block 9 , state "same."

Privately Owned Material - This block may be used to reflect a non-DOE transaction involving privately owned material. Enter the name and address of the person owning the material. If the same as block 9, state "same."

## 14. SHIPPED TO ACCOUNT OF -

DOE-Owned Material - Complete this block if the material being transferred is DOE owned. Enter the RIS (Block 14b), name and address of the person assuming lease or financial responsibility for the material. If the name and address are the same as block 10 , state "same."

Privately Owned Material - This block may be used to raflect a non-DOE transaction involving privately owned material. Enter
the name and address of the person assuming lease or financial responsibility for the material. If the same as block 10 , state "same."
15. TRANSFER AUTHORITY -

DOE-Owned Material - If the material is DOE owned, enter such transfer authority as may be appropriate, e.g., DOE Contract Number, Lease Agreement Number, Nuclear Material (NM) order number, or purchase order number. If the transfer is being made as a result of the NM Draft (Form DOE-437), enter the draft number.

## Privately Owned Material - Optional.

## EXPORT OR IMPORT TRANSFERS -

A. For all export or import transfers, enter the NRC export or import license number, respectively, under which special nuclear material or source material is being transterred. Where transfers are authorized by a general license, enter "Gen-Lic". There may also be cases where the transfer is 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 involved.
B. For all export or import transfers, enter the U.S. Port of Exit/Entry code designating where the shipment exited or entered the United States. Appendix I to these instructions contains a listing of all United States Customs Ports and their assigned four digit codes.

## 17. MATERIAL TYPE AND DESCRIPTION -

Enter the type of special nuclear material (Pu, Pu-238, U-233, or uranium enriched in the isotope $\mathrm{U}-235$ and if $<20 \%$ or $>20 \%$ ), or source material (depleted uranium, natural uranium, thorium), together with its physical and chemical form. Enter whether material being transferred is irradiated.
18. TRANSPORTATION PROFILE - No entry required.
19. PACKAGE IDENTIFICATION - No entry required.

## 20. ACTION DATE -

A. Entry required by shipper. Enter the date the nuclear material is shipped. If an import, also enter the IAEA country code in parentheses (see International Nuclear Facility Codes Manual, NMMSS Report D-15) for the foreign shipper in the space immediately following the word "shipment." If an export, enter the U.S. IAEA country code in parentheses (i.e., "U") in the space immediately following

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. Does not apply to transfers to nuclear laundry services.
24. SHIPPER'S DATA -

Shipper and receiver measurement data are entered on Form 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, "batch" is defined as a portion of nuclear material handled as a unit for accounting purposes at a key measurement point and for which the 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. Material being transferred with all the below data elements identical may be listed on one line of Form DOE/ NRC Form 741 (except as noted below). Material differing in regard to any of these data elements must be listed on separate lines:

> Country Control Number.
> DOE Project Number and Identification (if applicable). Material Type. Composition. Ownership. Weight \% Isotope (if applicable).

Note, however, that 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 will be used to describe the batch. The same name is repeated on all lines to describe all the conditions in a single batch. The "Number of Items," block 24.D, is also repeated on all lines for the same batch name.

Although this is the formal definitien of a "Batch" under 10 CFR Part 75, 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 74 or Part 40. For other transactions reported pursuant to 10 CFR Part 40 or Part 74 batch name entry and uniqueness are optional.

NOTE: If the shipment is an export or is being reported pursuant to 10 CFR Part 75, fuel assemiblies 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 (MT $10,20,81$, etc.) are properly adjusted.
the word "shipment." In the case of an export, the shipper is required to complete both items 20A and 20 C .
B. Entry required by shipper. If the document is an acknow1edgement or a correction to a previously issued transaction report, enter the date the correction is recorded or the acknowledgement is made, as appropriate.
C. Entry required by receiver. Enter the date the nuclear material is received. In the case of an import, the receiver is required to complete both items 20 C and 20 A .
D. Entry required by receiver. Enter the date nuclear material is measured by receiver. Required only if receiver's action code is "E."
E. Entry required by receiver. If the document is an acknowledgement or a correction to a previously issued transaction report, enter the date the correction is recorded or the acknowledgement made, as appropriate.

## 21. A. MISCELLANEOUS -

This block provides space if needed for further clarification of other entries on the form, and for shipper-toreceiver communications.
B. DOE/NRC FORM $740 M$ ATTACHED - SHIPPER

Check the appropriate box to indicate whether or not a concise note is attached. (If you check "yes", see Appendix IV for instructions for preparing DOE/NRC Form 740M.) If reporting a domestic transfer pursuant to 10 CFR Part 75 , a Concise Note may be necessary. If reporting an export pursuant to either 10 CFR Parts 40,74 , or 75 , a Concise Note is required.
C. DOE/NRC FORM $740 M$ ATTACHED - RECEIVER

Check the appropriate box to indicate whether or not a concise note is attached. (If you check "yes", see Appendix IV for instructions for preparing DOE/NRC Form 740M.) If reporting a domestic transfer pursuant to 10 CFR Part 75 , a Concise Note may be necessary. In the case of an import, a concise note may be necessary. (See Appendix IV to determine if required and for instruction for preparing DOE/NRC Form 740M.)
22. TOTAL GROSS WEIGHT -

Enter the total gross weight of the shipment rounded to nearest pound. An approximate or estimated gross weight rounded to the nearest pound figure is acceptable.
A. Line Number - In providing detailed measurement data, enter a line number beginning with 01 (to 99) for the first line of detail shipper's data, and increase the line number by one for each additional line of detailed shipper's data entered on the form. 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:
(1) different material types of multi-enrichment fuel rods entered on separate lines, but with the same batch name; and,
(2) when $U F_{6}$ product material and $U F_{6}$ heel material in a cylinder are reported on separate lines, the two lines must have the same batch name.

Refer to the instructions in Section IV for action code $M$.
B. Type of Inventory Change - All changes to inventory that meet the reporting criteria must be reported on DOE/NRC Form 741. There are twenty-nine (29) ICT codes. They can be categorized into several groups. A large group of these will require no entry in this block by the licensee since the information required to determine the ICT is reported elsewhere on the form. There is a group of seldom used codes that may occur in facilities covered by the note in $G$, such as de-exemption use, de-exemption quantity and exemption use, exemption quantity, and termination nonnuclear use, which will be addressed as they occur through direct contact between the licensee and the NRC. There is a third group for on which entry in this block is mandatory. Appendix $V$ defines and categorizes each ICT code.

When the ICT code for a normal operational loss/measured discard/accidental loss (LD, TW, FW) is used, additional information is required. There are four dispositions of measured discards for which data is to be reported:
(1) when material is discarded into the atmosphere (A);
(2) when material is discarded through ground effluents (G);
(3) when material is discarded into a pond or lagoon (L); and (4) when material is transferred to a holding area (H) at the facility pending possible shipment offsite for disposal.

When any of the above occurs, a DOE/NRC Form $74 i$ should be prepared. The shipper will enter his own RIS in the "Shipper's RIS" block (block 1), and the same RIS in the "Receiver's RIS" block (block 2), but append the receiver's RIS with an "A," "G," "L," or "H," as appropriate. For example, if a facility with RIS "XYZ" discards material to a lagoon, the transaction on the Form 741 would be from XYZ to $X Y \geq L$
C. Identification (Batch Name) - A name or number, or a combination of both, that is common to the reporting facility and identifies the batch of material involved in the shipment. If the licensee is reporting pursuant to 10 CFR Part 75, or if the transfer is an import or export, this item must be completed as follows: the shipper or receiver makes an entry which identifies a unique portion of nuclear material handled as a unit for accounting purposes. Batch name is limited to 16 characters with the right hand eight characters unique ${ }^{1}$ to the reporting facility. For fuel assemblies pins and rods, batch name should be the identification number 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 (Appendix IV).
D. Number of Items - Enter the number of similar items of which the line entry consists; i.e., cylinders, packs, drums, bird cages, bottles, tank vessels, etc. 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.
E. Project Number - Enter the DOE Project Number(s) for which $\overline{D O E-o w n e d ~ m a t e r i a l ~ i s ~ t o ~ b e ~ u s e d ; ~ o t h e r w i s e, ~ l e a v e ~ b l a n k . ~}$
F. Material Type - Enter the appropriate special nuclear material, or source material type code from the list below.

| U.S. CODE (Domestic transfers) | IAEA CODE <br> (Imports/ <br> Exports) | DESCRIPTION |
| :---: | :---: | :---: |
| 10 | 0 | Depleted uranium |
| 20 | EG | Enriched uranium |
| 50 | P | Plutonium |
| 70 | EK | ${ }^{233} \mathrm{U}$ |
| 81 | N | Normal uranium |
| 83 | Pu | Pu-238* |
| 88 | T | Thorium |

*Use this code only if Pu-238 is greater than 10\% of total Pu by weight; otherwise use code 50 .
G. Composition/Facility Code - Enter the appropriate code describing the physical (unencapsulated, encapsulated) and

[^0] Code.

NOTE: 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 such document has been provided to you under 10 CFR § 75.8). In accordance with 10 CFR $\S 75.11$, any change in facility operations or processes that would result in any changes to, additions in 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.
H. Production Code - For DOE use only.

1. 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.

| Code | Description |
| :--- | :--- |
| A | DOE loan material - Lease Agreement - Waiver <br> of Use Charge) |
| B | DOE lease material - Lease Agreement- <br> Non-Waiver of Use Charge |
| G | DOE owned material |
| H | Owned by other U.S. Government Agencies |
| J | Privately owned (domestic) |
| R | Privately owned (foreign) |
| S | DOE uwned, lease or loan agreement (foreign) |

3. Country Control Number - This block is used to reflect a "Country Control Number" (CCN), a code assigned to material upon its import into the U.S., material transferred within the U.S., and material exported from the U.S.

Each $C C N$ is structured to be an eight (8) character code consisting of four, distinct, two-character codes. The first two characters indicate the country of origin of the source material and are required for all transactions. The remaining characters (three through eight) are to be completed, if applicable. The second set of two characters
indicates the country providing the isotopic separation services; the third set of two characters indicates the country in which reactor products ( Pu or $\mathrm{U}-233$ ) are produced; and the lest two characters identify any other country(ies) or international organizations(s) attaching conditions* to the material in addition to any condition(s) that may be attached by a country identified in set one, two, or three, above. This unique code established for each combination of country(ies) or organization(s) attaching conditions, and represented by these last two characters, is maintained in the system as part of the CCN reference file.

The reference file contains all CCN's structured alphanumerically.

NOTE: The two-character alpha symbol that identifies the country (ies) in the CCN is derived as follows:
(1) to identify a foreign country, the two character symbol is derived by dropping the "R" at the beginning of the standard foreign country RIS and using the next two letters; and,
(2) to identify the United States as a country within the CCN, use "US."

For further information needed for the completion of this block, refer to the detailed CCN instructions that appear in Appendix III of these instructions.
K. Key Measurement Point (KMP) - (The next two items (K and L) apply only to licensees reporting pursuant to the requirements of 10 CFR Part 75.) This block is for the reporting of a location where nuclear material appears in such form that it may be measured to determine material flow or inventory. Codes for KMP's will be identified in the facility attachments or transitional facility attachments developed for those facilities described in the Note in 24.G. All others leave blank.
L. Measurement Identification (see $K$ above) - This block also applies only to those facilities covered in the Note in 24.G above. All others leave blank. This code indicates where and when the material was measured. It consists of three (3) parts.
(1) Basis -

Enter the pertinent one-character code from the following:

[^1]$N$ - if batch data are based on measurements made in an IAEA MBA other than the reporting MBA.
$L$ - if 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 batch data are based on measurements made in the reporting IAEA MBA and the data were not previously reported.
$T$ - if 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.
(2) Other Measurement KMP (OMP) - For batch data designated code "M" under Measurement Basis, enter the code of the KMP where measurements were made if different from the KMP indicated in $K$ above. If the same, leave blank.
(3) Measurement Method - If there are two or more measurement methods employed at the same KMP which have a different measurement uncertainty, enter the code for the measurement method used, as identified in your Facility Attachment.
M. Gross Weight - Enter the gross weight in pounds, i.e., weight of material shipped plus packaging and shipping container, of the line entry. An approximate or estimated gross weight figure is acceptable in this block.

NOTE: Where it is necessary to use gross and net weights that are different from the prescribed reporting unit (pounds), the specific weight unit used must be entered on the report.
N. Net Weight - Enter weight of material shipped excluding packaging and container weight, in pounds.
0. Element Weight - Enter the weight of the contained special nuclear material or source material rounded to the quantities reported below.

## Material

Plutonium or uranium enriched
in $\mathrm{U}-235$ or $\mathrm{U}-233$
Pu-238
Source material

## Units

Nearest whole gram

Nearest $1 / 10$ gram
Nearest kilogram

For quantiiies that round to zero enter an asterisk (*).
P. Element Limit of Error - Limits of error are only required to be reported by licensees authorized to possess at any time and location special nuclear material in a quantity exceeding one effective kilogram and to use special nuclear material for activities other than those involved in the operation of a nuclear reactor licensed pursuant to 10 CFR Part 50; those involved in a waste disposal operation; or as sealed sources ( 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 24.0 , except where the line entry represents a sealed plutonium-beryllium source (composition code 481); samples which have been determined by other means to contain less than 10 grams $U-235, U-233$, or plutonium each (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 need be entered only on the copy submitted to the NRC and on the record copy. Limits of error do not apply for source material. Licensees making onsite transfers between two different RIS's or 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.)
Q. Weight \% Isotope - Enter the weight percent of the isotope $0-235$ if uraniumin 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 ieast two but not more than four decimal places, depending upon the accuracy yielded by the measurement method employed. Example of weight percent isotope to four decimal places: $\mathrm{XX} . \mathrm{XXXX} \mathrm{\%}$. For U-233, enter the parts per million of $U-232$. Does not apply for norma 1 uranium and thorium. Use separate lines to report material of different enrichments.
R. Isotope Weight - Enter the isotope weight. If enriched uranium or $\mathbb{U}-233$, enter weight to the nearest gram of $\mathrm{U}-235$ or U-233 as appropriate. If plutonium, enter the sum of Pu-239 and $\mathrm{Pu}-241$ 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. For quantities that round to zero enter an asterisk (*).
S. Isotope Limit of Error - Limits of error are only required to be reported by licensees authorized to possess at any one time and location special nuclear material in a quantity exceeding one effective kilogram and to use such special nuclear material for activities other than those involved in the operation of a nuclear reactor licensed pursuant to 10 CFR Part 50, those involved in a waste disposal operation, or as sealed sources (10 CFR 70.58(e)).

Complete when the total shipment contains more than 50 grams of U-235, or plutonium, or any combination of these. Enter the limit of error for each isotope entry using the same weight units as in Block 24.R, except where the line entry represents a sealed plutonium-beryllium source (composition code 481); samples which have been determined by other means to contain less than 10 grams $U-235, U-233$, or plutonium each (composition code 771); and 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 need to be entered only on the copy submitted to the NRC and on the record copy.

Limits of error do not apply for source material.
T. $\frac{\text { Signature of Authorized Official and Date Signed }}{\text { report is to be signed by an authorized representative of }}$ the licensee. Enter the date signed.

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 would be disposed of, 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 physicaliy transmitted to the IAEA; such a request miust refer to, and must conform with 10 CFR 75.12.

## 25. 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:

1. IF THE RECEIVER PLANS TO ACCEPT THE SHIPPER'S MEASUREMENT DATA WITHOUT MAKING INDEPENDENT MEASUREMENTS - ("B" action coje)

The receiver shall, within ten (10) days of receipt of the material:
(1) complete block 7 (Receiver), block 20.C, block $25 . T$ of the 741 and state on the form "Based on Shipper's Values"; or
(2) complete Block 7 (Receiver), Block 20.C, and Block 25.A through $T$ of the 741.

Dispatch the form in accordance with Distribution of Copies by Receiver. Facilities reporting pursuant to 10 CFR 75 must follow option two (2).
2. IF THE RECEIVER MAKES INDEPENDENT MEASUREMENTS - ("E" action

The receiver shall, withir ten (10) days of receipt of the material:
(1) complete block 7 (Receiver), block 20.C, D, and 25.A through $T$ of the 741 ; showing the quantities of material as measured; and
(2) dispatch the form in accordance with Distribution of Copies by Receiver.

If delayed measurements are to be made, they must be completed and reported on a copy of the initial DOE/NRC Form 741 within thirty (30) days after the receipt of each shipment except in the case of receipts of scrap and irradiated material.
3. IF THE RECEIVER INTENDS TO MAKE INDEPENDENT MEASUREMENTS WITHIN

The receiver shall, within ten (10) days of receipt of the material:
(1) complete block. 7 (Receiver), block 20.C, and block 25.T of the 741;
(2) state on the form "Nuclear Material Transfer Receipt";
(3) dispatch the form in accordance with Distribution of Copies by Receiver; and
(4) after independent measurements are made, use the instructions for reporting a "B" or "E" action code.
4. IF THE RECEIVER INTENDS TO MAKE INDEPENDENT MEASUREMENTS FOR SCRAP AND IRRADIATED MATERIAL BEYOND THIRTY (30) DAYS BUT LESS
THAN 60 DAYS - ("U" action code)

The receiver shall, within ten (10) days of receipt of the material:
(1) complete block 7 (Receiver), block 20.C, and block 25.T of the 741;
(2) state on the form "Nuclear Material Transfer Receipt",
(3) dispatch the form in accordance with Distribution of Copies by Receiver; and
(4) after independent measurements are made, use the instructions for reporting a "B" or 'E"'action code.

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 and receiver data.

## WHEN REPORTING RECEIVERS DATA -

A. LINE NUMBER - Enter a line number, beginning with 01 (up to $\overline{99}$ ) for the first line of detailed receiver's data, and increase the line number by one for each additional line of detailed receiver's data entered. Refer to instructions in Section IV for action code M.

NOTE: RECEIVER MEASUREMENT DATA MUST BE ENTERED ON A ONE-TO-ONE CORRESPONDENCE WITH THE SHIPPER DATA. For example, if the shipper lists five line entries (01 through 05) of transfer data, the receiver must report five line entries. Line number 01 of the receiver's data must correspond to line number 01 of the shipper's data, etc.

If both the shipper and receiver are reporting pursuant to 10 CFR Part 75 or the transfer is an import, the receiver must report the receipt using the same batch name as the shipper.
B. TYPE OF INVENTORY CHANGE - See item 24.B.
C. IDENTIFICATION (Batch Name) - See Item 24.C.
D. NUMBER OF ITEMS - See Item 24.D.
E. PROJECT NUMBER - See Item 24.E.
F. MATERIAL TYPE - See Item 24.F.
G. COMPOSITION/FACILITY CODE - See Item 24.G.
H. PRODUCTION CODE - Not applicable.
I. OWNER CODE - This code describes the material ownership at the time it comes into the receiver's possession. See 24.I.
J. COUNTRY CONTROL NUMBER - See instructions for Item 24.J and
K. KEY MEASUREMENT POINT - See Item 24.K.
L. MEASUREMENT IDENTIFICATION - See Item 24.L.
M. GROSS WEIGHT - See Item 24.M.
N. NET WEIGHT - See Item 24.N.
0. ELEMENT WEIGHT - See Item 24.0.
P. ELEMENT LIMIT OF ERROR - See Item 24.P.
Q. WEIGHT \% ISOTOPE - See Item 24.Q.
R. ISOTOPE WEIGHT - See Item 24.R.
S. ISOTOPE LIMIT OF ERROR - See Item 24.S.
T. SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED - The report is to be signed by an authorized representative of the licensee. Enter the date signed.
B. DISTRIBUTION OF DOE/NRC FORM 741 OR FACSIMILE

1. SHIPPER
Distribute the completed DOE/NRC Form 741 as follows:
a. Send four (4) copies to the receiver, one of whichmust be with the shipment.
b. Mail one (1) copy to:
Forms containing Linclassified and/or Confidential datashould be mailed to:
Martin Marietta Energy Systems, Inc. ORGDP Site Nuclear Material Control - Mail Stop 19 P.0. Box 2003 Oak Ridge, Tennessee 37831
Forms containing Secret data should be mailed to:
Martin Marietta Energy Systems, Inc.
ORGDP/Records Department
P. O. Box 2003
Oak Ridge, Tennessee 37831
c. Retain one (1) copy for your file.

## 2. RECEIVER

Distribute the completed DOE/NRC Form 741 as follows:
a. Mail one (1) copy to:Martin Marietta Energy Systems, Inc.ORGDP Site
Nuclear Material Control - Mail Stop 19
P.O. Box 2003
Oak Ridge, Tennessee 37831

Forms containing Secret data should be mailed to:
Martin Marietta Energy Systems, Inc.
ORGDP/Records Department
P.O. Box 2003

Oak Ridge, Tennessee 37831
b. Return one (1) copy to shipper.
c. Retain one (1) copy for your file.

## III. PROCEDURE FOR CONTINUATION PAGE

If more lines of data are to be reported than can be accommodated on one pag:, use Nuclear Material Transaction Report, DOE/NRC Form 741A (continuatirn page) and follow the basic instructions for shipper, receiver, or onsite activity as appropriate.

PAGE NUMBER - Enter the page number of the continuation page.
TRANSFER SERIES - Enter the same transfer series data entered on the first page in Blocks 1 through 4.
IV. PROCEDURE FOR ONSITE GAINS AND LOSSES ("M" ACTION CODE).
A. DOE/NRC Form 741 Blocks

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 block one.
3. TRANSACTION NUMBER - See II. 3
4. CORRECTION NUMBER - See II. 4 and Section V
5. PROCESSING CODE - For NRC use only.
6. RESERVED - For NRC use only.
7. ACTION CODE - Enter " $M$ " in either the shipper, receiver or both
8. DATA CODE - For NRC use only.
9. NAME AND ADDRESS OF SHIPPER - See II.9
10. NAME AND ADDRESS OF RECEIVER - Enter "SAME"
11. NUMBER OF DATA LINES - Enter the total number of detail line entries on the form
12. NATURE OF TRANSACTION ~ Leave blank
13. SHIPPED FOR ACCOUNT OF -
DOE-Owned Materíal - See II. 13
Privately Owned Material - Leave blank
14. SHIPPED TO ACCOUNT OF -
DOE-Owned Material - See II. 14
Privately Owned Material - Leave blank
15. TRANSFER AUTHORITY -
DOE-Owned Material - See II. 15
Privately Owned Material - Leave blank
16. EXPORT OR IMPORT TRANSFERS - Leave blank
17. MATERIAL TYPE AND DESCRIPTION - See II.17
18. TRANSPORTATION PROFILE - Leave blank
19. PACKAGE IDENTIFICATION - Leave blank
20. ACTION DATE - Enter the date of the activity in at least one ofblocks A. - E. If more than one block is completed, all datesmust be the samie.
21. MISCELLANEOUS - See II. 21
22. TOTAL GROSS WEIGHT - Leave blank
23. TOTAL VOLUME - Leave blank
24. SHIPPER'S DATA -
A. Line Number - Both shipper (block 24) and receiver (block 25)data may be used. If both blocks are used, number consecutivelyfor the entire report. See II.24. A
B. Type of Inventory Change - Entry required see II.24.B
C. Identification (Batch Name) - Entry required if under 10 CFRPart 75, otherwise optional. See II. 24.C
D. Number of Items - Leave blank
E. Project Number - See II. 24. E
F. Material Type - See II. 24.F
G. Composition/Facility Code - Leave blank for inventory change type code MF. See II.24.G
H. Production Code - For DOE use only
I. Owner Code - See II. 24. I
J. Country Control Number - See II.24.J
K. Key Measurement Point - See II. 24. K
L. Measurement Identification - See II. 24.L
M. Gross Weight - Entry required only for corrections, see Section V.
N. Net Weight - Leave blank
25. Element Weight - See II. 24.0
P. Element Limit of Error - Leave blank
Q. Weight \% Isotope - Leave blank for inventory change type code MF except for enriched uranium in which case weight \% isotope is optional. For inventory change type codes, LN and $T N$, report the same weight \% isotope as the weight \% isotope of the beginning inventory for the period. See II. 24.Q
R. Isotope Weight - See II.24.R
S. Isotope Limit of Error - Leave blank
T. Signature of Authorized Official and Date Signed. See II. 24. T
26. Receiver's Data - See IV above.
B. DISTRIBUTION OF DOE/NRC FORM 741 OR FACSIMILE
Distribute the completed DOE/NRC Form 741 as follows:
27. Mail one copy to:
Forms containing Unclassified and/or Confidential data should be mailed to:
```
Martin Marietta Energy Systems, Inc.
ORGDP Site
Nuclear Material Control - Mail Stop 19
P.O. Box 2003
Oak Ridge, TN 37831
```

Forms containing Secret data should be mailed to:
Martin Marietta Energy Systems, Inc. ORGDP/Records Department P.O. Box 2003 Oak Ridge, TN 37831
2. Retain one (1) copy for your file.
V. PROCEDURES FOR CORRECTING DOE/NRC FORM 741 OR FACSIMILE - ("C", "D," or

Adjustments are independent actions which means either the shipper or the receiver may initiate an adjustment to a DOE/NRC Form 741 or Form 741A reporting the original shipment or receipt of material or to any previous adjustment to the original. Although the other party is obligated to acknowledge that an adjustment was made, they are not obligated to make the same adjustment to their own records.
A. If there are corrections to be made to blocks 1 through 23 of a previously submitted form 741, a letter should request that corrections be made to the data base. The general procedures or procedure for onsite gains and loses, as appropriate, shall be used for providing the new information. The letter should include the following information:

1. To identify the 741 being corrected:

Shipper's RIS - block 1
Receiver's RIS - block 2
Transaction number - block 3
Correction number - block 4
Date of shipment - block 20
2. For each block being corrected:
block number
"was" data
"should be" data
A copy of the letter should be sent to the other party invoived in the transaction being corrected.

An example of this letter is provided in Appendix VI.
As an alternative, the appropriate correcting documents may be completed and distributed.
B. If correcting blocks 24 or 25 , the general procedures or procedure for onsite gains and loses, as appropriate, shall be used for completing the new lines. The originator of the "corrected copy" shall:

1. Complete blocks 1 through $16 \mathrm{~A}, 20$, and 21 , as appropriate, using the copy of the 741 being corrected as reference.
2. Complete the "did read" line, blocks 24.B through $L$ and $N$ through $S$ or $25 . B$ through $L$ and $N$ through $S$, as appropriate, by duplicating the line being corrected from the 741 being corrected in its entirety and indicating the opposite sign (positive or negative) from the original one used in reporting the Number of It sis (block D), Element Weight (block 0), Elewent Limit of Error (block P), Isotope Weight (block R), and Isotope Limit of Error (block S).
3. Insert in block 24.M or 25.M of the "did read" line, as appropriate, a three digit back reference code. The first digit is the Correction Number (block 4) from the 741 being corrected. (If the line of data has been previously corrected, the most recent prior correction number should be used.) If the line of data has not been previously corrected a "0" should be used. The next two digits are the Line Number (block 24. A or 25.A) on the 741 being corrected.
4. Complete the next line of the 741 adjustment with all information as it "should read" for all the blocks in 24 or 25 except block M.
5. Insert in block 24.M or 25.M of the "should read" line, as appropriate, a three digit back reference code that reforences 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.

Continue this procedure until all lines requiring adjustment have been "backed out" and resupplied with the correct information.

The "did read" and "should read" for eacn line being adjusted should be paired (i.e., adjacent).
(Note: One or more changes can be made to each line with an adjusting entry. Also, 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 M).

If a line previously reported should be split into two or more lines, then one of the "should be" lines showid 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 and pairing is not required.

Examples of an initial report and subsequent correction reports are provided in Appendix VII.
C. Within ten (10) days the facility receiving the corrected 74 ) form must either:

1. State on the 741 form "Shipper's (or Receiver's) Adjustment." This will close a transaction but will not affect the acknowledging party's values. Or
2. State on the 741 "Shipper's (or Receiver's) Adjustment Accepted." This will close a transaction and applies the other party's adjustment to the acknowledging party's values. Or
3. State on the 741 form "Reporting Own Adjustment" and include adjusting detail information lines.

In addition blocks 7, 20 and 24 T or 25 T must be completed. There is no requirement ior both parties to make the sarie quantity adjustments. However, if both parties do choose to adjust under the same corrected 741 , they must both report the same number of entries and the material type must agree line-for-line.
D. Distribution of Corrections to DOE/NRC Form 741 or Facsimile: Originator should:

1. Send three (3) copies to the other party in the transaction.
2. Mail one (1) copy to:

Martin Marietta Energy Systems, Inc.
ORGDP site
Nuclear Material Control - Mail Stop 19
P. O. Box 2003

Oak Ridge, Tennessee 37831
For Secret data use ORGDP/Records Department.
3. Retain one (1) copy for your file.

Receives of a correction:
Distribute the completed DOE/NRC Form 741 as follows:

1. Mail one (1) copy to:

Martin Marietta Energy Systems, Inc. ORGDP site
Nuclear Material Control - Mail Stop 19
P.O. Box 2003

Oak Ridge, Tennessee 37831
2. Return one (1) to the originator.
3. Retain one (1) copy for your file.
VI. DOE REPORTING REQUIREMENTS FOR PROPRIETARY INTERESTS OF THE GOVERNMENT

DOE Order 5630 prescribes reporting recuirements for DOE-owned (lease, loan, contract) materials for the proprietary interests of the Government. The specific additional requirements pertaining to DOE-owned nuclear material include:

1. Transfers of enriched lithium, neptunium-237, deuterium, and other nuclear materials of proprietary interest to the Government are to be reported on DOE/NRC Form 741.
2. Additional distribution of DOE/NRC Form 741 to the shipper's and receiver's designated DOE operations offices is required.

## APPENDIX I

LISTING OF IDENTIFICATION CODES FOR U.S. CUSTOMS PORTS

> Sorted by: (1) State
>
> (2) Port

## APPENOIX I <br> LISTING OF IDENTIFICATION CODES FOR U.S. CUSTOMS PORTS

|  |  | CODE TO BE USED |
| :--- | :--- | :--- |
| PORT OF ENTRY/EXIT | STATE | ORM 741 |
| Unknown Port (Mail) | AK | 9999 |
| Alcan | AK | 3104 |
| Anchorage | AK | 3126 |
| Fairbanks | AK | 3111 |
| Juneau | AK | 3101 |
| Ketchikan | AK | 3102 |
| Kodiak | AK | 3127 |
| Pelican | AK | 3124 |
| Petersburg | AK | 3112 |
| Sand Point | AK | 3125 |
| Sitka | AK | 3115 |
| Skagway | AK | 3103 |
| Wrangell | AL | 3105 |
| Birmingham | AL | 1904 |
| Mobile | AR | 1901 |
| Douglas | AR | 2601 |
| Little Rock-North Little Rock | AR | 2003 |
| Lukeville | AR | 2602 |
| Naco | AR | 2603 |
| Nogales | AR | 2604 |
| Phoenix | AR | 2605 |
| San Luis | AR | 2608 |
| Sasabe | Bahama | 2606 |
| Nassau | CA | 5221 |
| Kindly Field | CA | 4721 |
| Andrade | CA | 2502 |
| Calexico | 2503 |  |
| Eureka | 2802 |  |


| PORT OF ENTRY/EXIT | STATE | CODE TO BE USED ON FORM 741 |
| :---: | :---: | :---: |
| Fresno | CA | 2803 |
| Los Angeles | CA | 2704 |
| Los Angeles Int ' 1 Airport | CA | 2720 |
| Port San Luis | CA | 2707 |
| San Diego | CA | 2501 |
| San Francisco/0akland | CA | 2809 |
| San Francisco Int'1 Airport | CA | 2801 |
| San Ysidro | CA | 2504 |
| Tecate | CA | 2505 |
| Montreal Airport | CN | 0221 |
| Toronto Airport | CN | 0921 |
| Vancouver | CN | 3028 |
| Winnipeg | CN | 3428 |
| Denver | CO | 2405 |
| Bridgeport | CT | 0601 |
| Hartford | CT | 0602 |
| New Haven | CT | 0603 |
| New London | CT | 0604 |
| Washington | DC | 5401 |
| Wilmington | DE | 1103 |
| Apalachicola Boca Grande | FL | 1905 |
| Boca Grande Carrabelle | FL | 1807 |
| Carrabelle ${ }^{\text {Fernandina Beach }}$ | FL | 1906 |
| Fernandina Beach Jacksonville | FL | 1805 |
| Jacksonville Key West | FL | 1803 |
| Key West Miami | FL | 5202 |
| Miami Int'l Airport | FL | 5201 |
| Miami Int'l Airport | FL | 5206 |
| Panama City | FL | 1907 |

```
APPENDIX I (continued)
```

|  |  | CODE TO BE USED |
| :--- | :--- | :---: |
| PORT OF ENTRY/EXIT | STATE | FORM 741 |
| Pensacola | FL | 1908 |
| Port Canaveral | FL | 1816 |
| Port Everglades | FL | 5203 |
| Port St. Joseph | FL | 1909 |
| St. Petersburg | FL | 1814 |
| Tampa | FL | 1801 |
| West Palm Beach | FL | 5204 |
| Atlanta | GA | 1704 |
| Brunswick | GA | 1701 |
| Savannah | GA | 1703 |
| Hilo | HI | 3202 |
| Honolulu | HI | 3201 |
| Honolulu Int'l Airport | HI | 3205 |
| Kahului | HI | 3203 |
| Nawiliwili - Port Allen | HI | 3204 |
| Des Moines | IA | 3907 |
| Eastport | ID | 3302 |
| Porthill | ID | 3308 |
| Chicago | IL | 3901 |
| O'Hare International Airport | IL | 3906 |
| Peoria | IL | 3902 |
| Evansville | IN | 4113 |
| Indianapolis | IN | 4110 |
| Lawencesburg | KS | 4114 |
| Wichita | LA | 4504 |
| Louisville | 4115 |  |
| Baton Rouge | 2004 |  |
| Lake Charles | 2105 |  |
| Morgan City | 2001 |  |
|  |  |  |


| PORT OF ENTRY/EXIT | STATE | CODE TO BE USED ON FORM 741 |
| :---: | :---: | :---: |
| New Orleans | LA | 2002 |
| Boston | MA | 0401 |
| Fall River | MA | 0407 |
| Gloucester | MA | 0404 |
| Lawrence | MA | 0416 |
| Logan Airport | MA | 0417 |
| New Bedford | MA | 0405 |
| Plymouth | MA | 0406 |
| Salem | MA | 0408 |
| Springfield | MA | 0402 |
| Worcester | MA | 0403 |
| Annapolis | MO | 1301 |
| Baltimore | MD | 1303 |
| Cambridge | MD | 1302 |
| Bangor | ME | 0102 |
| Bar Harbor | ME | 0112 |
| Bath | ME | 0111 |
| Belfast | ME | 0132 |
| Bridgewater | ME | 0127 |
| Calais | ME | 0115 |
| Eastport | ME | 0103 |
| Fort Fairfield | ME | 0107 |
| Fort Kent | ME | 0110 |
| Houlton | ME | 0106 |
| Jackman | ME | 0104 |
| Jonesport | ME | 0122 |
| Limestone | ME | 0118 |
| Madawaska | ME | 0109 |
| Portland | ME | 0101 |


|  |  | CODE TO BE USED |
| :--- | :---: | :---: |
| PORT OF ENTRY/EXIT | STATE | ON FORM 741 |
| Rockland | ME | 0121 |
| Van Buren | ME | 0108 |
| Vanceboro | ME | 0105 |
| Detroit | MI | 3801 |
| Muskegon | MI | 3815 |
| Port Huron | MI | 3802 |
| South Haven | MI | 3822 |
| Saginaw - Bay City | MI | 3804 |
| Sault St. Marie | MI | 3803 |
| Baudette | MN | 3424 |
| Duluth | MN | 3601 |
| Grand Portage | MN | 3613 |
| International Falls-Rainer | MN | 3604 |
| Minneapolis - St. Paul | MN | 3501 |
| Ncyes | MN | 3402 |
| Pinecreek | MN | 3425 |
| Roseau | MN | 3426 |
| Warroad | MN | 3423 |
| Kansas City | MO | 4501 |
| St. Jesepn | MO | 4502 |
| St. Louis | MO | 4503 |
| Greenville | MS | 2011 |
| Gulfport | MS | 1902 |
| Pascagoula | MS | 1903 |
| Vicksburg | MS | 2015 |
| Butte | MT | 3305 |
| Del Bonita | 3322 |  |
| Great Falls | 3304 |  |
| Morgan | 3319 |  |
|  |  |  |


| PORT OF ENTRY/EXIT | STATE | CODE TO BE USED ON FORM 741 |
| :---: | :---: | :---: |
| Opheim | MT | 3317 |
| Piegan | MT | 3316 |
| Raymond | MT | 3301 |
| Roosville | MT | 3318 |
| Scobey | MT | 3309 |
| Sweetgrass | MT | 2310 |
| Turner | MT | 3306 |
| Whitetail | MT | 3312 |
| Whitlash | MT | 3321 |
| Beaufort-Morehead City | NC | 1511 |
| Charlotte | NC | 1512 |
| Durham | NC | 1503 |
| Reidsville | NC | 1506 |
| Wilmington | NC | 1501 |
| Winston-Salem | NC | 1502 |
| Ambrose | ND | 3410 |
| Antler | ND | 3413 |
| Carbury | NO | 3421 |
| Dunseith | ND | 3422 |
| Fortuna | ND | 3417 |
| Hannah | ND | 3408 |
| Hansboro | ND | 3415 |
| Maida | ND | 3416 |
| Neche | ND | 3404 |
| Noonan | ND | 3420 |
| Northgate | ND | 3406 |
| Pembina | ND | 3401 |
| Portal | ND | 3403 |
| Sarles | ND | 3409 |


| PORT OF ENTRY/EXIT | STATE | CODE TO BE USED ON FORM 741 |
| :---: | :---: | :---: |
| Sherwood | ND | 3414 |
| St. John | ND | 3405 |
| Walhalla | ND | 3407 |
| Westhope | ND | 3419 |
| Omaha | NE | 3903 |
| Portsmouth | NH | 0131 |
| Newark | NJ | 4601 |
| Perth Amboy | NJ | 4602 |
| Albuquerque | NM | 2407 |
| Columbus | NM | 2406 |
| Las Vegas | NV | 2722 |
| Reno | NV | 2833 |
| Albany | NY | 1002 |
| Alexandria Bay | NY | 0708 |
| Buffalo-Niagara Falls | NY | 0901 |
| Cape Vincent | NY | 0706 |
| Champlain-Rouses Point | NY | 0712 |
| Chateaugay | NY | 0711 |
| Clayton | NY | 0714 |
| Fort Covington | NY | 0705 |
| J. F. Kennedy Int'1 Airport | NY | 4701 |
| Massena | NY | 0704 |
| Morristown | NY | 0707 |
| New York | NY | 1001 |
| Ogdensburg | NY | 0701 |
| Oswego | NY | 0904 |
| Rochester | NY | 0903 |
| Sodus Point | NY | 0905 |
| Syracuse | NY | 0906 |


|  |  | CODE TO BE USED |
| :--- | :--- | :---: |
| PORT OF ENTRY/EXIT | STATE | ON FORM 741 |
| Trout River | NY | 0715 |
| Utica | NY | 0907 |
| Waddington | NY | 0713 |
| Akron | OH | 4112 |
| Ashtabula | OH | 4108 |
| Cincinnati | OH | 4102 |
| Cleveland | OH | 4101 |
| Columbus | OH | 4103 |
| Conneaut | OH | 4109 |
| Dayton | OH | 4104 |
| Sandusky | OH | 4107 |
| Toledo | OH | 4105 |
| Astoria | OR | 2901 |
| Coos Bay | OR | 2903 |
| Newport | OR | 2902 |
| Portland | OR | 2904 |
| Oklahoma City | OK | 5304 |
| Tulsa | OK | 5305 |
| Chester | PA | 1102 |
| Erie | PA | 4106 |
| Harrisburg | PA | 1109 |
| Philadelphia | PA | 1101 |
| Pittsburgh | PA | 1104 |
| Wilkes-Barre/Scranton | PA | 1106 |
| Aguadilla | PR | 4901 |
| Fajardo | PR | 4904 |
| Gualica | 4905 |  |
| Hurnacao | 4906 |  |
| Jabos | 4911 |  |
|  |  |  |

## APPENDIX I (continued)

|  |  | CODE TO BE USED |
| :--- | :---: | :---: |
| PORT OF ENTRY/EXIT | STATE | ON FORM 741 |
| Mayaguez | PR | 4907 |
| Ponce | PR | 4908 |
| San Juan | PR | 4909 |
| San Juan Int'l Airport | PR | 4913 |
| Newport | RI | 0501 |
| Providence | RI | 0502 |
| Charleston | SC | 1601 |
| Columbia | SC | 1604 |
| Georgetown | SC | 1602 |
| Greenville-Spartanburg | SC | 1603 |
| Chattanooga | TN | 2008 |
| Knoxville | TN | 2016 |
| Memphis | TN | 2006 |
| Nashville | TN | 2007 |
| Beaumont | TX | 2104 |
| Amarillo | TX | 5307 |
| Brownsville | TX | 2301 |
| Corpus Christi | TX | 2205 |
| Dallas - Fort Worth | TX | 5306 |
| Del Rio | TX | 2302 |
| Eagle Pass | TX | 2303 |
| El Paso | TX | 2402 |
| Fabens | TX | 2404 |
| Freeport | TX | 2204 |
| Galveston | TX | 2201 |
| Hidalgo | TX | 2305 |
| Houston | 5301 |  |
| Laredo | 2304 |  |
| Lubbock | TX | 5308 |
| Orange | 2103 |  |
|  |  |  |


|  |  | CODE TO BE USED |
| :--- | :--- | :---: |
| PORT OF ENTRY/EXIT | STATE | ON FORM 741 |
| Port Arthur | TX | 2101 |
| Port Lavaca/Port Comfort | TX | 2208 |
| Presido | TX | 2403 |
| Progresso | TX | 2309 |
| Rio Grande City | TX | 2307 |
| Roma | TX | 2310 |
| Sabine | TX | 2102 |
| San Antonio | TX | 2308 |
| Salt Lake City | UT | 2832 |
| Alexandria | VA | 5402 |
| Cape Charles City | VA | 1406 |
| Newport News | VA | 1402 |
| Norfolk | VA | 1401 |
| Portsmouth | VA | 1401 |
| Reedville | VA | 1407 |
| Richmond - Petersburg | VA | 1404 |
| Charlotte Amalie | VA | 5101 |
| Christiansted | VA | 5104 |
| Coral Bay | VI | 5103 |
| Cruz Bay | VI | 5102 |
| Frederiksted | VI | 5105 |
| St. Croix Airport | VI | 5207 |
| St. Thomas Airport | VI | 5208 |
| Alburg | VT | 0205 |
| Beecher Falls | VT | 0206 |
| Burlington | VT | 0207 |
| Derby Line | VT | 0209 |
| Highgate Springs | VT | 0210 |
| North Troy |  | 0208 |
|  |  |  |
|  |  |  |
|  |  |  |

```
APPENDIX I (continued)
```

| PORT OF ENTRY/EXIT | STATE | CODE. TO BE USED ON FORM 741 |
| :---: | :---: | :---: |
| Norton | VT | 0211 |
| Richford | VT | 0203 |
| St. Albans | VT | 0201 |
| Aberdeen | WA | 3003 |
| Anacortes | WA | 3010 |
| Bellingham | WA | 3005 |
| Blaine | WA | 3004 |
| Boundary | WA | 3015 |
| Danville | WA | 3012 |
| Everett | WA | 3006 |
| Ferry | WA | 3013 |
| Friday Harbor | WA | 3014 |
| Frontier | WA | 3020 |
| Laurier | WA | 3016 |
| Longview | WA | 2905 |
| Lynden | WA | 3023 |
| Metal ine Falls | WA | 3025 |
| Neah Bay | WA | 3027 |
| Nighthawk | WA | 3011 |
| Olympia | WA | 3026 |
| Oroville | WA | 3019 |
| Port Angeles | WA | 3007 |
| Port Townsend | WA | 3008 |
| Seattle | WA | 3001 |
| Seattle-Tacoma Int'1 Airport | WA | 3029 |
| South Bend - Raymond | WA | 3021 |
| Spokane | WA | 3022 |
| Sumas | WA | 3009 |
| Tacoma | WA | 3002 |

```
APPENDIX I (continued)
```

\(\left.\begin{array}{lcc}\hline PORT OF ENTRY/EXIT \& STATE \& CODE TO SE USED <br>

ON FORM 741\end{array}\right]\)| Ashland | WI | 3602 |
| :--- | :---: | :---: |
| Green Bay | WI | 3703 |
| Manitowoc | WI | 3706 |
| Marinette | WI | 3702 |
| Milwaukse | WI | 3701 |
| Racine | WI | 3708 |
| Sheboygan | WI | 3707 |
| Superior | WI | 3608 |
| Charleston | WV | 1409 |

## APPENDIX II

COMPOSITION AND NATURE OF TRANSACTION CODES

## APPENDIX II

COMPOSITION AND NATURE OF TRANSACTION CODES

1. Composition Codes (For Additional Codes See NMMSS Report D-25)

CODE CATEGORY (AND DESCRIPTION, IF WARRANTED)
UNENCAPSULATED - except scrap

032
048
770
455

064
100
083

773
363
409
786
701
702
771
637
$\mathrm{U}_{3} \mathrm{O}_{8}$
$\mathrm{UO}_{3}$ (Trioxide Product)
Carbides
Other Oxides Product - For all oxides not otherwise identified

Tetrafluorides (Tetrafluoride Product)
$\mathrm{UF}_{6}$ Commercial Feed
UF ${ }_{6}$ Mexafluoride Product
UNENCAPSULATED - except scrap (Continued)
$\mathrm{UF}_{6}$ Heels
IN Reactor Product
Nitrate solutions product
Acetate solutions product
Unalloyed Metal Product
Alloyed Metal product
Samples and Standards
Sintered Products
Scrap - for recovery**
A00 Unalloyed metal

[^2]
## APPENDIX II (Continued)

| $\underline{\text { CODE }}$ | CATEGORY (AND DESCRIPTION, IF WARRANTED) |
| :--- | :--- |
| BOO | Alloyed metal |
| COO | Compounds |
| 000 | Combustibles |
| E00 | Noncombustibles |
| F00 | Solutions |
| 600 | Process Residues |
| 375 | Irradiate Recyclable Fuel |
| Waste - for disposal: $\quad$Waste material should be described by <br> an appropriate scrap category. |  |

## ENCAPSULATED

291

309

481
OTHER
776

Fabricated Fuel Elements - pins, rods, plates

Fuel assemblies (Assembled Items Product)

Sealed sources (Fabricated Sources Product)

Other Products

Note: $\quad U / T h$ and $P u / U$ 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.
2. Nature of Transaction

CODE DESCRIPTION

- DOE Owned Material -

A
Initiates lease/financial responsibility
B
Transfers lease/financial responsibility

## APPENDIX II (Continued)

C

D

E
F Pursuant to an enriching service agreement
G
Sale to DOE
R

S

- Privately Owned Material (Non-DOE) -

L
M

N
$p$
Transfer of leased material - No change of lease or financial responsibility.

Rt uurn to DOE for credit under DOE lease agreement.
Sale for DOE
Sale to DOE

R Donation for DOE
Donation to DOE

Lease of privately owned material
Sale of privately owned material
Transfer only of privately owned material
OTHER (explain in Block 21, "Micellaneous")

## APPENDIX III

SUPPLEMENTAL INSTRUCTIONS FOR COMPLETING
BLOCKS 24.J AND 25.J OF DOE/NRC FORM 741

## APPENDIX III

## SUPPLEMENTAL INSTRUCTIONS FOR COMPLETING

 BLOCKS 24.J and 25.J OF DOE/NRC FORM 741
## Country Control Number (CCN)

The country control number is structured as an eight (8) character code composed of four (4) sets of two character country codes as follows:

## Characters

## Description

(1 and 2) - The country of origin of the source material
(3 and 4) - the country providing isotopic separation services
( 5 and 6 ) - the country in whic! eactor products are produced
(7 and 8) - any other country or international organization attaching safeguards conditions (as explained in paragraph d on page 44) to the material in additional to any that may be attached by a country identified in set one, two, or three above (characters 1 through 6).

If no country code is entered, zeros must be used. For all foreign origin material, the two character symbol is derived by dropping the "R" at the beginning of the standard three letter foreign country RIS designated heretofore and using the remaining two letters (e.g. , "CA" for Canada, "Fp" for France, etc.). See list of country RIS's in NMMSS Report D-15.

For all United States origin material, use the two character symbol "US. "
A licensee determines the proper $C C N$, using either the number assigned initially to the material or the initial number plus any applicable set of two character codes following the instructions as stated below.

The appropriate CCN for each nuclear material contained in the transaction is entered in either blocks $24 . J$ or $25 . J$, as applicable of the DOE/NRC Form 741 (Nuclear Material Transaction Report).

An explanation of each set of two character codes follows:
a. The country of origin of the source material (1st and 2 nd characters). The first set of two characters are alpha symbols to identify the country of origin of the source material and is required for all transactions.

NOTE: The remaining characters (three through eight in sets of two each) are to be used if applicable.
b. The country providing the isotopic separation services (3rd and 4th characters). The second set of two characters are alpha symbols to identify the country that performed the isotopic separation service that originally produced the enriched or depleted uranium in the material involved in the nuclear material transaction.

Some examples are:
(1) Normal uranium mined, converted to concentrates and then to $U F_{6}$ in Canada, and the $\mathrm{UF}_{6}$ was sent to the U.S. and enriched with no safeguards conditions attached by other countries.

The CCN would be CA US 0000 .
(2) Enriched uranium that was a product of normal uranium mined, converted to concentrates and then to $\mathrm{UF}_{6}$ in the U.S. and the $\mathrm{U}-235$ was enriched in the U.S. with no safeguards conditions attached by other countries.

The CCN would be US US 0000 .
c. The country in which reactor products are produced (5th and 6th characters). The third set of two characters are alpha symbols to identify the country where the production of Plutonium ( Pu ) or Uranium-233 (U-233) occurred.
(1) Normal uranium mined, converted to concentrates and then to $U F_{6}$ in Canada; UF $\mathrm{E}_{\mathrm{E}}$ sent to U.S. and enriched. Fuel elements fabricated in U.S. and shipped to Spain for insertion into a reactor. The irradiated fuel elements are discharged from the Spanish reactor and sent to thie U.S. without any safeguards conditions attached by other than the countries already identified in sets 1,2 , and 3 of the $C C N$. For the produced plutonium the CCN would be CA US SP 00.
(2) Normal uranium mined, converted to concentrates, and then to $U F_{6}$ in the U.S., enriched in the U.S., fuel elements fabricated in the U.S., used in a power reactor in the U.S., and irradiated fuel elements discharged from the reactor and sent to a U.S. facility for storage without safeguards conditions attached by other than the countries already identified in sets 1,2 , and 3 of the CCN. For the produced plutonium, the CCN would be US US US 00. For the remaining enriched or depleted uranium, the CCN would be US US 0000 .
d. Any other country or international organization attaching safeguards conditions to the material in addition to those that may be attached by a country identified in set one, two, or three above (3.a, 3.b, and 3.c, respectively) (7th and 8 th characters). The fourth set of two characters may be numeric, alpha or alphanumeric symbols. These last two characters identify any other country(ies) or international organization(s) attaching safeguards conditions, and are unique for each such combination of country(ies) or organization(s). The word "conditions" means any applicable supplier requirements that material be used only for peaceful applications; that it be subject to IAEA safeguards; that the foreign country

## APPENDIX III (Continued)

or countries concerned be informed of material location; or that the material may not be exported from the U.S., enriched or reprocessed, without the prior consent of such country or countries. The safeguards conditions attached depend on the terms of agreements for cooperation for supply of the material. Information as to the conditions stipulated by the individual countries attached conditions must be known at the time of import license application in order that they may be coded and fed back to the licensee as part of the CCN structure. These unique combinations represented by the last two characters will be maintained in the NMMSS as part of a CCN reference file. A two character alpha/numeric code will be assigned to each unique condition or set of conditions as they are defined or identified. These codes will be maintained within the NMMSS and disseminated to prospective users.

Country Control Number Entries in Blocks $24 . J$ and $25 . J$ of DOE/NRC Form 741
The licensee is to use either the "as received" CCN code intact, without any additions, or the "as received" CCN code with any applicable addition of one or more sets of two characters codes incurred while the material was in the possession of the licensee.

The use or application of CCN codes for import material are special cases and are developed and perpetuated as described below.
a. Imports

Each import of nuclear material into the U.S. requires an import license, either specific or general. As a condition for obtaining a specific license, the importing facility must identify: the country of origin of the source material; the country which provided any isotopic separation; the country in which reactor products were produced (if any); and the country(ies) or organization(s) attaching safeguards conditions, if applicable. When material is imported having special safeguards conditions attached, the NRC will provide the proper code(s) to be used in characters 7 and 8 of the $C C N$. This will be determined during the licensing process. In cases of import of source or byproduct material' under a general license the importing facility is required to provide the above listed information upon submission of the DOE/NRC Form 741 which documents the transaction.

At the time the imported nuclear material is received at the facility, a DOE/NRC Form 741 is prepared to document the transfer of the material. All shippers and receivers data are to be entered, including the appropriate country control number(s) which must be entered in blocks $24 . \mathrm{J}$ and $25 . \mathrm{J}$ for each nuclear material imported.

NOTE: Only one import license number and/or contract number is to be entered on a DOE/NRC Form 741. If more than one license number and/or contract number applies to the material received, a separate DOE/NRC Form 741 is prepared to document the transfer of the material imported under each license number and/or contract number.

## APPENDIX III (Continued)

The CCN, assigned to material on its import into the U.S., is used to follow (track) that material throughout the U.S.

Following are only a few of the many possible examples of how to construct the appropriate CCN code to identify material imported into the U.S.:
(1) Source material (normal uranium concentrates) imported into the U.S. from Canada, with no safeguards conditions attached by other countries.

CCN: CA 000000
(2) Normal uranium mined in Canada, converted to concentrates, then to $U F_{6}$, shipped to a U.S. enrichment facility and then to a U.S. fabrication facility, with no concitions attached by other countries.

CCN: CA US 0000
(3) Normal uranium was mined in Australia and then converted to concentrates, enriched and fabricated into fuel elements in the United Kingdom. The elements were included in a fuel assembly and put in power reactors in the United Kingdom; then the spent fuel elements, containing reactor products Pu and/or $\mathrm{U}-233$, are shipped to the U.S. The material has no safeguards attached.

## CCN: AU UK UK 00

(4) The material described in (3) above is subject to international Atomic Energy Agency (IAEA) safeguards at the time it was shipped to a U.S. facility. The material now has IAEA safequards conditions attached, the latter identified, for this example, by code "XX."

CCN: AU UK UK XX
b. Transfers Within the U.S.

Transfers of nuclear material are documented on the DOE/NRC Form 741. The form must show the CCN in block 24.J or 25.J.
(1) Transfer of Imported Material

For the initial transfer of imported material from the importing facility to another U.S. facility, the DOE/NRC Form 741 must show the CCN assigned to the material at the time of import modified as necessary to reflect any change in the material status while possessed by the importing facility. If material from more than one CCN is being transferred in the shipment, a separate line must be used for the quantity associated with each CCN.

For example:
Canadian source material (normal uranium) already in the U.S. and subsequently shipped to a U.S. enrichment facility. The material has no safeguards conditions attached by other countries.

CCN: CA 000000
(2) Transfer of Enriched Material From Enrichment Facilities

When a U.S. shipping facility has enriched the material and the enriched product is being transferred, the $C C N$ assigned to the product will retain the identity of the country of origin of the source material and any country(ies) or organization(s) attaching safeguards conditions. In addition, the shipper will enter "US" in the second set of two-character codes of the original CCN to denote that the material was enriched or depleted in the U.S.
(3) Transfer of Material Between U.S. Facilities Other Than The Importing Facility)

If no change in the status of the material (i.e., enrichment or use in a reactor) has resulted form the use in the shipping facility, the facility will enter in block 24J the CCN obtained from the DOE/NRC Form 741 originally transferring the material into the facility.

NOTE: The CCN does not change as a result of the conversion or the fabrication operations.
(4) Transfer of Reactor Products

If a reactor product resulted at the shipping facility, enter "US" in the third set of two-character codes of the CCN to identify the country producing the reactor product.

The receiving facility involved in all of the above instances must identify in its records system the quantity of each type of material received associated with each CCN.

Reports prepared from the U.S. tracking system inventory files and furnished to each facility holding nuclear material will provide a means of verifying the accuracy of the facility records.
C. Exports

Each export of nuclear material from the U.S. requires an export license. As a condition for obtaining a license to export nuclear material from the U.S., the exporting facility will be asked to identify the country of origin of the material, the country providing any isotopic separation, the

## APPENDIX III (Continued)

country in which any reactor products are produced, and the country(ies) or organization(s) attaching safeguards conditions, if applicable. Such information will be used by the NRC to determine if the export license can be approved.

In cases of export of source or byproduct material under a general license or license exempt the exporting facility is required to provide the above listed information upon submission of the DOE/NRC form 741 which documents the transaction.

At the time of export, the exporter must prepare a DOE/NRC Form 741 transfer document entering in block 24J, the CCN which identifies the material being exported.

If material with more than one $C C N$ is involved in the shipment, a separate line must be used for the quantity associated with each CCN

The CCN must agree with the CCN account holdings (inventory) shown on the exporting facility "book inventory." Examples of exports:
(1) Canadian origin material shipped to Australia after enrichment in the U.S. with no safeguards conditions attached by other countries.

CCN: CA US 0000
(2) U.S. origin material enriched in the U.S. is shipped to Germany for conversion of the $U F_{6}$ to $\mathrm{UO}_{2}$ with no safeguards conditions attached by other countries.

CCN: US US 0000
(3) Canadian origin material, enriched in the U.S., fabricated into fuel elements for and used in a U.S. power reactor, and the spent fuel elements containing reactor products ( Pu and/or $\|-233$ ), are shipped to Japan with no safeguards conditions attached by other countries.

CCN: CA US US 00 For Pu and U-233
CCN: CA US 0000 For depleted U.

## APPENDIX IV

CONCISE NOTE - DOE/NRC FORM 740 M

These instructions apply to

- installations which have been notified by letter from the NRC, as provided in 10 CFR §75.11, that they have been identified under tile US/IAEA Safeguards Agreement. Facility Attachments or Transitional Facility Attachments for such installations may specify circumstances under which Concise Notes are required to be submitted to the IAEA as attachments to other reports, or
export. of nuclear material in a quaritity of 1 kilogram or more of sourç erial or 1 gram or more of special nuclear material. These facilitits should use the DOE/NRC Form 740 M to explain to the foreign State, where on the DOE/NRC Form 741 the IAEA required data items appear. In particular the following information is to be provided:

IAEA country code - appears in Block 20. A in parentheses on DOE/NRC Form 741. (These codes are listed in NMMSS Report D-15.)
IAEA element (materiai type) code - appears in Plock 24.F on DOE/NRC Form 741.

IAEA material balance area codes - appear in Block 1 in parentheses (U.S. MBAs) and Block 2 in parentheses (Foreign MBA cocies) on DOE/ NRC Form 741. (The Foreign MBA codes are listed in NMMSS Report D-15. The Domestic IAEA MBA codes are formed by prefixing your domestic RIS with the letter " $U$ ".)

Batch Name - appears in Block 24.C on DOE/NRC Form 741.
Material Weights (Element and Isotope) - appeai in Block 24.0 and 24.R, respectively, on the $\overline{D C E / N R C ~ F o r m ~} 741$.
or importers who for any reason cannot use the same batch name as the shipper or if the shipper fails to supply a batch name, the importer should supply his own and attach a concise note to that effect. In addition, if the shipper fails to supply his IAEA MBA code, the IAEA material type code, or the IAEA country code, a concise note should be prepared stating that the data was not supplied.

In some cases, it may be desirable to provide additional explanatory inti mation w'th reports. The DOE/NRC Form 740 M is the vehicle to be used to submit a concise Note. Form 740 M may be attached to a DOE/NRL Form 741, Transaction Report; a DOE/NRC Form 742, Material Balance Report; or a DOE/NRC Form 742C,

## APPENDIX IV (Continued)

Physical Inventory Listing; or a stand alone concise note for facilities reporting under 10 CFR Part 75. No classified information should be entered on DOE/ NRC Form 740M. These instructions detail the procedures for use of Form 740M:

## Instructions for Completing DOE/NRC Form 740M

The numbered blocks of the DOE/NRC Form 740 M shal: be filled in as follows:

1. Name and address: Enter the name and address of the reporing facility.
2. Attachment to: Place a check mark or an $x$ in the appropi iate box to indicate whether this explanatory information will be attached to a Form $741 / 741 \mathrm{~A}, 742$, or 742 C .
3. KIS. Enter the four (4) character ?eporting Identification Symbol (RIS) for the IAEA MBA to which the explanatory information in this report applies.
4. Reporting Period: Complete this block only if box $2 b$ was checked, indicating that this Concise Note is attached to a DOE/NRC Form 742 , Material Balance Report. Enter the beginning and ending dates of the reporting period as shown on the Form 742.

5 Transaction Data: Complete this t. ink only if box 2 a was checked Material that this Form 740M is attached to a Form 741/741A, Nucisar Material Transaction Report or if a stand alone concise note is reported. Copy the requested data from the Form 741/741A. All entries in this block must be identified to those on the form 741/741A. Fill in the blocks as follows:
a. Shipper's RIS:
b. Receiver's RIS:
c. Transaction No.:
d. Correction No.:
e. Processing Code: For NRC use only.
f. Action Code

Enter the RIS of the shipper.
Enter the RIS of the receiver.
Enter the unique transaction number.
If the Form $741 / 741 \mathrm{~A}$ is a correction to a previous report, enter the correction number.

If a Form 740 M is used with a Form 741, enter the same action code as on Form 741 block 7 , otherwise enter action code " $M$ ".
g. Data Code: For NRC lise only.
6. Reporting Date: Cumplete this block if box 2 a or 2 c was checked. Copy the date shown on the form 741/741A or 742C.

## APPENDIX IV (Continued)

7. License Number(s): Enter any applicable license number(s).
8. This block contains the actual explanatory data and the other data necessary to link the explanaiory data to the part(s) of the report to which they apply. Complete this block as follows:
a. Line Number: Enter consecutive numbers beginning with one (1) for each explanatory reference. For example, if two sets of explanatory information are entered (e.g., one set for the whole report and one set for specific batch), the first set consisting of two lines and the second set, of three lines, the line numbers, in order, should read $1,2,1,2,3$.
b. Entry Reference: If the explanatory information entered on this line of the Forz 740 M applies to the entire Form $741 / 741 \mathrm{~A}, 742$, or 742 C , enter the words, "WHOLE REPORT." If the explanation applies to the data on a specific batch on a Form 741/741A or 742C, copy the batch name exactly as it appears on the Form $741 / 741 \mathrm{~A}$ or 742 C . 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 that line of the Form 742; if the explanation applies so categories 22 or 71, enter the two-character inventory change type (ICT) as shown on that line of the Form 742. If Form 740 M action code is "M" enter "General."
c. Text of Concise Note: Enter any 43 characiers of letters, numbers, or special characters per line. Up to 99 lines of text may be used for any one explanation
9. Signature: The DOE/NRC Form 740 M is to be signed by an sutior ized representative of the licensee.
10. Title: Enter the title of the person signing the forin.
11. Date: Enter the date the form was signed.
12. Distribution of Form 740 M

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

## APPENDIX V

INVENTORY CHANGE TYPE CODES

## APPENDIX V

## INVENTORY CHANGE TYPE CODES

Ai) inventory change type codes on transaction reports consist of two alphabetic characters. The accounting entry type codes used on MBRs consist of two digits. In the following pages the number(s) in parenthesis following the alphabetic code represent the MBR line for which the transaction entries correspond. The standard inventory changes and other entry types are listed below. In transaction reports, all transactions and operations are understood to be related to individual batches. In Material Balance Reports (MBR), the same corresponding 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 control number cannot be determined, should be reported as a loss to all country control number balances by applying a one to one ratio by percent of country control number to the amount of inventory affected to the amount of the inventory change. For example, if decay is reported for plutonium within a reactor and the plutonium balance represents several different country control number balances the following calculations would determine the amount of decay to apply to each country control number balance.

|  | Element | Isotope |
| :---: | :---: | :---: |
| Amount of inventory for which decay applies | 1,202,239 | 950,947 |
| Calculated decay for the period | 998 | 998 |

Balance by Country Control Number

| CCN | $\underline{\text { ELEMENT }}$ |  | ISOTOPE | \% Ratio to Total Inventory |  |
| :---: | :--- | :--- | :--- | :--- | :--- |
| UKUSUSOO | 200,000 |  | 158,196 |  | $200,000 / 1,202,239=.166 \times 100=17 \%$ |
| USFRUSOO | 509,321 |  | 402,863 | $509,321 / 1,202,239=.424 \times 100=42 \%$ |  |
| CAUSUSOO | $\underline{492,918}$ |  | $\underline{389,888}$ |  | $492,918 / 1,202,239=410 \times 100=41 \%$ |

Total Pu
Balance $1,202,239$
950,947
100\%
Amount of decay to apply to each country control number balance
UKUSUSOO $998 \times 17 \%=169.66$ rounded to the nearest gram $=170$
USFRUSOO $998 \times 42 \%=419.16$ rounded to the nearest gram $=419$
CAUCUS00 $998 \times 41 \%=409.18$ rounded to the nearest gram $=\frac{409}{998}$

## APPENDIX $\vee$ (Continued)

The above procedure should also be followed using the isotope balances.

| TRANS. MBR CODE LINE | EXPLANATION | REQUIREMENT FOR <br> BLOCKS 24.B AND 25. B |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { RF } \\ & (11,30,39) \end{aligned}$ | Nuclear material imported into the United States (Receipt Foreign) | Make no entry |
| $\begin{aligned} & \text { RD } \\ & (11,30,39) \end{aligned}$ | Domestic receipt of nuclear material from another domestic RIS (Receipt Domest;c) | Make no entry |
| $\begin{aligned} & \text { RN } \\ & (11,30,39) \end{aligned}$ | 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 ( $\mathrm{Pu}, \mathrm{U}_{233}$ ) | 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 75 only) | Entry required only after notification by NRC |
| DQ (76) | Reapplication of safeguards on nuclear material previous exempted therefrom pursuant to Article 38 of the Agreement after being exempted based on quantity (Licensees) subject to 10 CFR 75 only) | Entry required only after notification by NRC |
| SF $(42,51,58)$ | Export of nuclear material out of the United States | Make no entry |
| $\begin{aligned} & \text { SD } \\ & (42,51,58) \end{aligned}$ | Domestic transfer of nuclear material to another Domestic RIS | Make no entry |
| $\begin{aligned} & S N \\ & (42,51,58) \end{aligned}$ | Domest.ic transfer of nuclear material from a facility subject to 10 CFR Part 75 to a waste management facility | Entry required |
| $\begin{aligned} & S N \\ & (42,51,58) \end{aligned}$ | 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 |
| $L N^{\star}$ (73) | Consumption of nuclear material due to its transformation into other element(s) or isotope(s) as a result of nuclear reactions (burnup) | Entry required by licensee |
| *NOTE: | When calculating weight \% isotope in the c report the same weight \% isotope for decay weight \% isotope of the beginning inventor | of burnup or decay, d burnup as the or the period. |

TRANS. MBR
CODE LINE
EXPLANATION
$\mathrm{TN}^{\star}$ (72) Consumption of nuclear material due to its transformation into other elements or isotope(s) as a result of nuclear reactions (decay)

O (74) Operational loss; 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

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

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

EU (76) Exemption of nuclear material from safeguards pursuant to Article 36 of the Agreement (Licensees subject to 10 CFR Part 75 only)

EQ (76) Exemption of nuclear material from safeguards pursuant to Article 37 of the Agreement (Licensees subject to 10 CFR Part 75 only)

TU (76) Termination of safeguards on nuclear materia? pursuant to Articles 13 and 35 of the Agreement (Licensees subject to 10 CFR Part 75 only)

REQUIREMENT OR
BLOCKS 24.B AND 25.B

Entry required by
licensee

Entry required by licensee

Entry required by licensee

Entry required by licensee

Entry required only after notification by NRC

Entry required only after notification by NRC

Entry required only after notification by NRC
*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.

| TRANS. MBR CODE LINE | EXPLANATION | REQUIREMENT FOR <br> BLOCKS 24.B AND 25.B |
| :---: | :---: | :---: |
| 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 ( $\mathrm{N} / \mathrm{A}$ ) | 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 |


| TRANS. MBR CODE LINE | EXPLANATION | REQUIREMENT FOR <br> BLOCKS 24.B AND 25.B |
| :---: | :---: | :---: |
| RM ( $\mathrm{N} / \mathrm{A}$ ) | 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 |
| EN $(22,71)$ | Category Change |  |
| $\begin{aligned} & \mathrm{ED} \\ & \mathrm{NE} \end{aligned}$ | The quantity of uranium which has changed category as a result of blending, enrichment, depletion or burn-up. The first | Entry required by licensee |
| ND | letter denotes the original, the second |  |
| DE | letter the resulting category ( $\mathrm{E}=$ enriched, |  |
| DN | $N=$ natural (for "normal"), d=depleted uranium). The material type codes should bethose for both the original and the resulting material. The weight data should be provided both for the originating and for the resulting category. <br> These entries should be consolidated into the material balances for both categories. For any of these changes line pairing is required, one denoting the original material and the other denoting the resulting material. |  |
| MF (77) | Inventory differrence: this should be calculated as the difference between the adjusted ending book inventory and the physical inventory | Entry required by licensee |
| $P B(N / A)$ | 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 (N/A) The sum of all measured and derived batch quantities of nuclear material on hand at the date of the physical inventory taking

RAXX (N/A) 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 adjustmert is made to an entry in the MBR on which the IAEA has been informed differently through ICRs and 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 ending book inventory and of the MUF, the following formulae should be used respectively.
$R A B A=P B+I C_{M B R}-D I-B A$ and
RAMF + BA - PE - MF
where IC MBR represented 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.

No rounding adjustment is needed for the beginning physical inventory.

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.

Make entry required

Entry by licensee required only if applicable

TRANS. MBR CODE LINE EXPLANATION

34 (30) Receipts - Miscellaneous. Enter quantities of material received in two-party transactions where only receiver's data are reported or receipts of quantities of material falling below the reporting level 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.

54 (51) Shipments - Miscellaneous. Enter quantities of material shipped in two-party transactions where only shipper's data are reported or ship" ments of quantities of material falling below the reporting level and now cumulatively total 1 gram or more of SNM or 1 kilogram or more for source material. Examples include 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.

REQUIREMENT FOR
BLOCKS 24.8 AND 25.B

## Licensee

 entry requiredLicensee entry required

## APPENDIX VI

SAMPI.E LETTER TO CORRECT HEADER INFORMATION
(Blocks 1 through 23)

## Sample Letter to Correct Header Data (Block 1 through 23)

Martin Marietta Energy Systems, Inc.
ORGDP site
Nuclear Material Control - Mail Stop 19
P.0. Box 2003

Oak Ridge, TM 37831
Dear Sirs:
Please make corrections as indicated below to the following transactions:

1. $X X X$ to $Y Y Y$

Transaction \#0012
Correction \#0
2/12/84
block number 13B was "XSNM-0000"
should be "XSNM-1111"
2. $X X X X$ to $A B C$

Transaction \#0015
Correction \#0
2/15/84
block number 2 was " $A B C$ " should be "ACB"

> Sincerely,

Licensee XXX

## APPENDIX VII

Examples of Documents
Correcting Shipper and Receiver Data
(Blocks 24 and 25)

## EXAMPLE 1 - INITIAL REPORT

On May 16, 1982 shipper "XXX" transferred to receiver "YYY" fabricated fue) elements containing:

| Line |  | Element | Isotope |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
| 1 | natural uranium | 2 kilograms |  |
| 2 | $1.7080 \%$ enriched uranium | 5,429 grams | 93.00 gmis |
| 3 | $2.0110 \%$ enriched uranium | 8,220 grams | 65.00 gms |
| 4 | $2.2180 \%$ enriched uranium | 5,469 grams | 21.00 gms |

On May 30, 1982 receiver "YYY" acknowledged receipt of the shipment and accepts shipper "XXX" weights without further measurement

These transactions were reported on $X X X / Y Y Y / 2$ (Example 1 ).

## EXAMPLE 2 - CORRECTION 1

On July 30, 1982, the shipper corrects the element weights for lines 1 and 3 to reflect adjusted element weights of 3 and 9220 respectively.
This correction is reported on $X X X / Y Y Y / 2 / 1$ (Example 2).

## EXAMPLE 3 - CORRECTION 2

On November 15, 1982 shipper reports an adjustment to the country control number entry on detail line 04 of correction 1 report (line 3 of the original report).

This correction is reported on $X X X / Y Y Y / 2 / 2$ (EXample 3).
NOTE: The line of data was adjusted in the correction 1 report. Therefore, for the back reference in Block 25M, the most recent prior correction number is " 1 " with line number " 04 ".

## EXAMPLE 4 - CORRECTION 3

On December 31, 1982 receiver reports an adjustment to the weight percent isotope on line 2 of the initial report.

This correction is reported on $X X X / Y Y Y / 2 / 3$ (Example 4).
NOTE: No other corrections by the receiver have been made to the initial report. Therefore, for the back reference in block 24 M , a " 0 " is used to reference the correction number from the 741 being corrected.

## EXAMPLE 5 - INITIAL REPORT ACTION CODE M

On September 30,1987 facility XXX reported decay, production and inventory difference.

These inventory changes were reported on $X X X / X X X / 1$ (Example 5).

## EXAMPLE 1 - CORRECTION 1 TO ACTION CODE M

On March 31, 1988 facility XXX corrects the country control number and, of element and isotope weights on line 3 and 4 . In addition, the element and isotope weights on line 6 were corrected and a new line was added.




EXAMPLE 2: CORRECTION 1 (shipper adjusting lines 01 and 03 of the initial transaction)

$\infty$



```
\mathrm{ net/nRC Fosm 741 EXAMPLE 3: CORRECTION 2 (shipper adjusting line 04 of correction 1)}
NUCLEAR MATERIAL TRANSACTION REPORT
Na,
```







0






|  |  |  |  |  |  |  |  |  |  |  |  |  | av |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\cdots$ | $\therefore$ | axtum | －2． | $\xrightarrow{*-3}$ | E | 为 | $\cdots$ | ＊ | wow | \％ | ＝ | $\therefore \div$ |  |  | mex | $\cdots$ | \％ | ＊＊ | $\cdots$ |
|  |  | TN | Decay |  |  | 50 | 309 |  | J | CAUSUSOO |  |  |  | 003 |  | $-400-9$ |  | 28．25 | －409 |  |
| $\stackrel{1}{1}$ | 02 | TN | Decay |  |  | 50 | 309 |  | $J$ | USUSUSOQ |  |  |  | 101 |  | 424 |  | 28.25 | 424 |  |
|  |  |  | Decay |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 㚅 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{\frac{2}{5}}{}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \％ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 動 | 重衰 |  | IPPER＇S DATA T SIGNA |  | RIZED <br> prowsion | ial． |  | E SIG |  |  |  |  |  | $\overline{R E C}$ | $1$ |  |  |  | $03 / 3$ |  |
|  | 03 | NP | Production |  |  | 50 | 309 |  | $\checkmark$ | USERUSQO |  |  |  | 004 |  | $-36,000$ |  | 28.25 | －22．000 |  |
|  | 04 | NP | Production |  |  | 50. | 309 |  | J | USUSUSOQ |  |  |  | 103 |  | 29．000 |  | 28.25 | 18.000 |  |
| 䢒 | 05 | ME | Inventory Diff |  |  | 20. |  |  | $J$ | USUSOQOd |  |  |  | 006 |  | ＋10 |  |  | －10 |  |
| a | 06 | MF | Inveatory Diff |  |  | 20 |  |  | J | USUSOOOX |  |  |  | 105 |  | －09 |  |  | 09 |  |
| $\stackrel{\text { ® }}{ \pm}$ | 07 | NP | Production |  |  | 50 | 309. |  | J | USFRUSOd |  |  |  | 000 |  | 7.000 |  | 28.25 | 4.000 |  |
| 춘 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 崖 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \％ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |




[^0]:    ${ }^{\text {The }}$ The batch name must be unique to the reporting facility for the duration of the material balance period in which reported.

[^1]:    *"Attached conditions" are described in the supplemental instructions in Appendix III.

[^2]:    *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 describing the predominant scrap category.

