Code 10 -model
Articles 59-65, 67

CONTENTS, FORMAT AND STRUCTURE OF REPORTS TO THE AGENCY

1. ACCOUNTING REPORTS

A system of records and reports will be established by [Country] structured in such a way as to enable the Agency to discharge its responsibilities efficiently and effectively. The data to be contained in records and reports are specified so as to permit the Agency to implement its procedures, including those for audit and verification of records on status and location of nuclear material, as well as for development of statistical sampling plans and meaningful error evaluation. Since the records kept at facilities form the basis for the reports to be submitted to the Agency, the specification of their basic elements must be closely linked.

The following sections describe the elements of the reports system developed by the Agency; the specific reporting requirements for any particular plant or location will be established in accordance with this system in individual Facility Attachments agreed between [Country] and the Agency.

The Material Balance Area (MBA) is the basic reporting entity. MBAs are defined in the Facility Attachment agreed for each facility. For every such MBA, the nuclear material is accounted for and reported in Inventory Change Reports (ICR) and Physical Inventory Listings (PIL) by batch, which 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 nuclear material may be in bulk form or contained in a number of separate items.

An overview of the basic contents of ICRs, PILs, and Material Balance Reports (MBRs) follows:

- ICRs: each change in the inventory of nuclear material in an MBA; in specified cases also changes in batch composition;

- PILs: a listing of all batches of nuclear material, including names and identification of each batch; and

- MBRs: entries summarising (not broken down by batches), the components of the material balance.

Additionally, Concise Note entries or Textual Reports (TRs) providing additional explanation and clarification at the country, facility MBA, report or entry level may be submitted.

ICRs, PILs and MBRs dealt with under this Code are designed to fulfil all requirements derived from the Agreement as well as from computerised data processing in [Country] and at the Agency, and from data transmission to the Agency.

2. DATA ELEMENTS

2.1 The following table lists the data elements that may appear in ICRs, MBRs, PILs and TRs. Every data element is briefly defined and each report in which it may appear is indicated.

DATA ELEMENT	REPORT
REFERENCE NUMBER: uniquely defines a report for filing, processing, sorting and reference purposes	ICR, PIL, MBR, TR
ENTRY NUMBER / TOTAL NUMBER OF ENTRIES: identifies the given entry and the total number of entries used for that specific report	ICR, PIL, MBR, TR
REPORT DATE: the date on which the report was produced	ICR, PIL, MBR, TR
ENCODER'S NAME: the name of the official responsible for the report	ICR, PIL, MBR
REPORT TYPE: indicates the type of report	ICR, PIL, MBR, TR
REPORTING PERIOD: the period covered by the report; in a PIL the date as of which the physical inventory was taken	ICR, PIL, MBR
CONCISE NOTE REFERENCE: provides the country, facility, MBA, report as a whole or entry to which the Concise Note refers	ICR, PIL, MBR, TR
FACILITY CODE: identifies the reporting facility	ICR, PIL, MBR
MBA CODE: identifies the reporting material balance area	ICR, PIL, MBR
ENTRY STATUS AND CROSS-REFERENCE CODE: indicates whether the entry is new, invalid, a correction, addition, or deletion. In correction, addition or deletion entries, it also identifies the entry to be corrected, added or deleted	ICR, PIL, MBR
STATE ACCOUNTING SYSTEM RECORD IDENTIFICATION: identifies the corresponding information in the State accounting system	ICR, PIL, MBR
SHIPPER OF NUCLEAR MATERIAL: identifies the shipper of the nuclear material	ICR
RECEIVER OF NUCLEAR MATERIAL: identifies the receiver of the nuclear material	ICR
CONCISE NOTE INDICATOR: calls attention to a Concise Note attached	ICR, PIL, MBR
TEXT OF CONCISE NOTE: clarifications, amplifications and other unformatted information	ICR, PIL, MBR, TR
KEY MEASUREMENT POINT CODE: identifies the flow or inventory key measurement code for the batch	ICR, PIL
TYPE OF INVENTORY CHANGE, TYPE OF ACCOUNTING ENTRY: defines the type of transaction reported or a material balance item	ICR, MBR

DATA ELEMENT	REPORT
DATE OF INVENTORY CHANGE: date on which an inventory change occurred or was established	ICR
MATERIAL DESCRIPTION CODE: the set of Agency-defined codes that describe the physical and chemical form of a batch of material, its container and its quality	ICR, PIL
OPERATOR'S MATERIAL DESCRIPTION CODE: the code used by the operator to identify the type of nuclear material	ICR, PIL
OPERATOR'S MATERIAL DESCRIPTION (TEXT): unformatted description of the batch in free text	ICR, PIL
NON-LATIN ALPHABET IDENTIFICATION: a code to indicate that a non-Latin alphabet was used in the report and to identify that alphabet	ICR, PIL, MBR
BATCH NAME: uniquely identifies a portion of nuclear material handled as a unit for accounting purposes	ICR, PIL
SHIPPER'S BATCH NAME: identifies the shipper's batch name in the reporting of a receipt	ICR
MEASUREMENT IDENTIFICATION CODE: indicates when and where the batch was last measured	ICR, PIL
NUMBER OF ITEMS IN THE BATCH: the number of items comprising the batch	ICR, PIL
WEIGHT DATA: the quantity of nuclear material which is the subject of the entry in question, expressed by the weight of the chemical elements and, if appropriate, the corresponding fissile content. If required, isotopic composition is also to be provided	ICR, PIL, MBR

2.2. In the data element formats whose description follows below, clear distinction should be made between the letter O and the number 0. Henceforth in this Code, the letter is shaped as Ø and the number zero is shaped as 0.

3. SPECIFICATION OF DATA ELEMENTS

3.1 A data element is identified by a unique three digit number called a label. Values which the data element may take on are set off from labels by delimiters. A label may identify a unique or composite data element. In the latter case, the components are internally separated by delimiters.

3.2 The following delimiters are used in this Code:

: to separate the label number and the content of a data element;
/ to separate data items within a composite data element;
; to separate data items within a composite data element;
to indicate the end of a data element.

3.3 The delimiters described above form an integral part of the data element and must be reproduced as such in the reports transmitted to the Agency. In exceptional cases, deviations from the standard set of

delimiters may be agreed to by the Agency if the recording devices available to the reporting State do not support the above delimiters.

3.4 All data elements (items) are of variable length, unless the permitted or prescribed number of characters is specifically indicated.

LABEL FORMAT AND DESCRIPTION

001 REFERENCE NUMBER

001: **/**;***…***#

This data element uniquely identifies a report for filing, processing, sorting and reference purposes.

- code ØI for accounting entries, or code NC for Concise Note entries;
- slash (/);
- country code;
- semicolon (;);
- the numeric report number assigned by the reporting authority. The report number must be unique for any given MBA. All reports - whether they are ICRs, PILs, MBRs or TRs - are to be numbered consecutively with respect to each MBA, regardless of report type.

002 ENTRY NUMBER / TOTAL NUMBER OF ENTRIES

002: *** ... ***/*** ... ***#

This data element numbers the specific entry within the set of ØI or NC entries contained in the report:

- sequential number of the ØI or NC entry, (starting with 1 within each set of ØI and NC entries);
- slash (/);
- total number of ØI or NC entries in the report (this may be omitted together with the preceding slash in all entries, except for the first ØI and NC entry of a report, where it is mandatory).

003 REPORT DATE

003: [********][******] #

This data element should indicate the date when the report was produced:

- the [four][last two] digits of the current year,
- the two-digit designation of the month,
- the two-digit designation of the day.

006 ENCODER'S NAME

006: *** ... ***#

The encoder is considered to be the official responsible for the report. A maximum of thirty characters may be reported.

- the family name;
- a comma (,);
- the initials.

010 REPORT TYPE

010: *#

This data element indicates the type of report by a one-character code:

- Ifor Inventory Change Report,
- P for Physical Inventory Listing,
- M for Material Balance Report,
- T for Textual Report.

015 REPORTING PERIOD

015: [********/********][******/******]#

This data element indicates the beginning and ending dates of the period covered by an ICR or MBR. For PILs it is sufficient to provide only the date as of which the physical inventory was established (i.e., the ending date of the corresponding Material Balance Report). In the case of an ICR, the specified period should include the Dates of Inventory Change reported in all new entries in the report.

- [eight][six] numeric digits for the beginning date (as in label 003 above);
- slash (/);
- [eight][six] numeric digits for the ending date (as in label 003 above).

099 CONCISE NOTE REFERENCE

099:*/*** ... ***#

This data element is used only in Concise Note entries. It refers the entry (if appropriate) to the report as a whole or a specific accounting entry in the ØI report with the same report number.

- letter E if it is related to a specific entry; in this case followed by a
  - slash (/); and
  - the number of the entry in question or
- letter R if the Concise Note refers to the report as a whole.

207 FACILITY CODE

207:****#

The four-character identification code of the facility containing the reporting MBA as specified in the relevant Facility Attachment.

307 MBA CODE

307:****#

The four-character identification code of the MBA submitting the report as specified in the relevant Facility Attachment.

309 ENTRY STATUS AND CROSS REFERENCE CODE

309:*/**;*** ... ***/*** ... ***# (309:*#)

This data element describes the status of the entry and, when necessary, provides a reference to a previously reported entry.

- one-character code to designate the status of the entry:
  - N for new entries,
  - U for invalid entries to be ignored,
  - C for entries serving as corrections to earlier ones. The remainder of the entry should contain the same data elements and values of the referenced line entry except for those elements being corrected.
  - D for entries deleting the one referenced by this entry. The data elements for the remainder of the entry are optional.
  - A for an entry to be added to a previous report.
- slash (/); this and the following reference codes are mandatory if the entry status code is C, D, or A. For N, they are not applicable; for U, they are optional.
- country code (the same as in label 001)
- semicolon (;);
- the report number assigned by the reporting authority as specified in label 001 of the entry being referenced;
- slash (/);
- entry number of the entry to be referenced (first subfield 002 of that entry), or in the case of an addition entry, the number of the entry as it is to appear in the report to which the entry is being added.

310 STATE ACCOUNTING SYSTEM RECORD IDENTIFICATION

310:***...***

This optional data element provides the identification in the State accounting system which uniquely refers to the data contained in the State report. A maximum of forty characters may be reported.

370 SHIPPER OF NUCLEAR MATERIAL

370:**/****#

This data element identifies the shipper of nuclear material that has been received by the MBA indicated in label 307. It is mandatory when reporting domestic receipt of nuclear material from another MBA, or import of nuclear material; otherwise, it may be omitted. If an import is reported and the shipping MBA (or facility) code is unknown to the receiver, it is sufficient to report only the country code.

- country code;
- slash (/);
- MBA (or, for imports, facility or country) code.

372 RECEIVER OF NUCLEAR MATERIAL

372:**/****#

This data element identifies the receiver of nuclear material that has been shipped by the MBA indicated in label 307. It is mandatory when reporting domestic transfer of nuclear material to another MBA or export of nuclear material; otherwise, it may be omitted. If an export is reported and the receiving MBA (or facility) code is unknown to the shipper, it is sufficient to report only the country code.

- country code;
- slash (/);
- MBA (or, for exports, facility or country) code.

390 CONCISE NOTE INDICATOR

390:*#

This optional data element serves to call attention to a Concise Note included in the report or otherwise attached to it.

- letter Y indicating the presence of a Concise Note.

391 TEXT OF CONCISE NOTE

391:*** ... ***#

The text of the Concise Note in free format, using only capital Latin letters, numerals and permitted special symbols to provide clarifications, amplifications and other unformatted information, such as relevant burn-up values, relevant aspects of the operational programme, etc. A maximum of 2000 characters may be reported in a single entry.

407 KEY MEASUREMENT POINT CODE

407:**#

The appropriate KMP code, as assigned in the Facility Attachment.

411 TYPE OF INVENTORY CHANGE, TYPE OF ACCOUNTING ENTRY

411:**# (411:****# for rounding adjustments)

In ICRs, inventory change codes consist of two alphabetic characters. The accounting entry type codes used in MBRs also consist of two letters, except for the codes indicating rounding adjustments. The inventory changes and other entry types are listed below. In ICRs, all transactions and operations are related to individual batches. In MBRs, the same codes denote consolidated entries, i.e., the sums of all individual operations with the same code over the material balance period. In addition, MBRs include entries related to inventories and adjustments not reported in ICRs.

Keyword	**Code**	**Explanation**
Receipt foreign	RF	Import of nuclear material into [Country]
Receipt domestic	RD	Domestic receipt of nuclear material from another MBA
Receipt at starting point	RS	Domestic receipt of nuclear material at starting point of safeguards pursuant to Article [34(c)] of the Agreement
Receipt from non-safeguarded activity	RN	Domestic receipt of nuclear material from non- safeguarded (permitted military) activity
Nuclear production	NP	Production of fissionable material in a reactor (Pu, U_{233})
De-exemption, use	DU	Reapplication of safeguards on nuclear material previously exempted therefrom pursuant to Article [36] of the Agreement
De-exemption, quantity	DQ	Reapplication of safeguards on nuclear material previously exempted therefrom pursuant to Article [37] of the Agreement
Shipment foreign	SF	Export of nuclear material out of [Country]
Shipment domestic	SD	Domestic transfer of nuclear material to another MBA
Shipment to non-safeguarded activity	SN	Domestic transfer of nuclear material to non-safeguarded (permitted military) activity
Nuclear loss	LN	Consumption of nuclear material due to its transformation into other element(s) or isotope(s) as a result of nuclear reactions
Measured discard	LD	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
Transfer to retained waste	TW	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
Retransfer from retained waste	FW	Retransfer of material which had 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 transfer from the MBA
Exemption, use	EU	Exemption of nuclear material from safeguards pursuant to Article [36] of the Agreement
Exemption, quantity	EQ	Exemption of nuclear material from safeguards pursuant to Article [37] of the Agreement
Termination	TU	Termination of safeguards on nuclear material pursuant to Article [35] of the Agreement
Accidental loss	LA	Irretrievable and inadvertent loss of a known quantity of nuclear material as the result of an operational accident
Accidental gain	GA	Nuclear material unexpectedly found to be present in the MBA, except when detected in the course of a physical inventory taking

Keyword	**Code**	**Explanation**
Category change (with the appropriate code as shown) [1]	EN ED NE ND DE DN	The quantity of uranium which has changed category as a result of blending, enrichment, depletion or burn-up. The first letter denotes the original, the second letter the resulting category: (E = enriched, N = natural, D = depleted uranium). The material description codes (labels 430 and if appropriate 435) should be those for the resulting material. The weight data (in labels 610, 620, 630, 640, 660, 670, 770, 780 as appropriate) should be provided both for the originating and for the resulting category. These entries should be consolidated into the material balances for both categories.

In addition to the changes described above, the inventory may be adjusted in accordance with the results of measurements performed in the material balance area on nuclear material previously recorded and reported on shipper's data. The keyword and the code are as follows:

Shipper-receiver difference	DI	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

The following, which are not inventory changes, are for reporting changes in batch identification and/or content.

Decrease in batch content[1]	RM	The quantity by which the batch mentioned in the entry is diminished due to rebatching
Increase in batch content[2]	RP	The quantity of material added to the batch mentioned in the entry from another batch due to rebatching

The following entries appear only in Material Balance Reports:

Beginning physical inventory	PB	Beginning physical inventory should be equal to the ending physical inventory of the previous MBR relating to the same category of material
Inventory changes		For each type of inventory change as applicable for the MBA in question, one consolidated entry should be made for the entire material balance period.
Ending book inventory[3]	BE	The algebraic sum of the beginning physical inventory and the inventory changes, not including any rounding adjustments reported in the MBR.
Shipper/receiver difference	DI	One consolidated entry should be made for all shipper/receiver differences over the entire reporting period, if applicable

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1 This procedure is not applicable in MBAs which report in terms of 'unified uranium'.

2 The batch decreases and increases involved in rebatching should be reported simultaneously in separate entries. In any given ICR the sum of entries with the code RM should be equal to the sum of entries with the code RP. Since these entries do not change the total inventory, they should be ignored during the calculation of a material balance.

3 This entry is optional.

Keyword	**Code**	**Explanation**
Adjusted ending book inventory	BA	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
Ending physical inventory	PE	The sum of all measured and derived batch quantities of nuclear material on hand at the date of the physical inventory taking
MUF	MF	Material unaccounted for: this should be calculated as the difference between the adjusted ending book inventory and the ending physical inventory
Rounding adjustment to entry XX	RAXX	The quantity to be added to the rounded sum to make it equal to the sum of the rounded terms. A rounding adjustment is made to an entry in the MBR on which the Agency 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. The rounding adjustments 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 In the case of a rounding adjustment to the ending book inventory, adjusted ending book inventory or MUF, the following formulae should be used respectively: RABE = PB + IC_{MBR} - BE RABA = PB + IC_{MBR} - DI - BA RAMF = BA - PE - MF where IC_{MBR} represents the sum of the consolidated inventory changes as reported in the MBR, taken with the appropriate sign indicating increases or decreases.

412 DATE OF INVENTORY CHANGE
412:[********][******]#
This data element indicates the date on which the change in inventory occurred or was established.
- [eight][six] numeric digits (as in label 003 above)

430 MATERIAL DESCRIPTION CODE
430:*/*/*/*#
This data element consists of a four-character code indicating the physical and chemical form, containment and irradiation status and quality of the nuclear material in the batch. The domestic shipment of a given batch from one MBA and its receipt in another MBA must be reported with the same material description code. Each of these codes corresponds also to a keyword combination for use in uncoded communication. If the codes are used in hard-copy communications, the slashes may be omitted.

Physical form

Keyword	Explanation	Code
Fuel elements	Complete fuel elements for a given reactor system (e.g. assemblies or bundles)	B
Fuel components	Components of fuel elements (e.g. pins or plates)	D
Powders	Powders (non-ceramic): any powdered material other than ceramic grade oxides and carbides	F
Powder, ceramic	Powders, ceramic grade: high-fired oxide or carbide specially prepared for ceramic fuel manufacture	G
Formed, green	Green pellets and particles: formed by pressing or granulating mixtures of ceramic grade powder with a binder, before sintering	H
Ceramics	Ceramic pellets and particles: as above, after debonding and sintering	J
Coated particles	Ceramic particles which have been given a protective coating (e.g. of SiC)	K
Solids, other	Solid materials other than those specified above (e.g. ingots, billets, extrusion pieces), but not mixed materials.[4] UF_6 should also be included in this category	Ø
Liquids	Aqueous solutions, organic or other liquids	N
Residues, scrap	Residues and scrap arising from production process, intended to be recycled or recovered	R
Sealed sources	Sources of radiation consisting of permanently encapsulated fissile materials	Q/S[5]
Waste, solid	Solid wastes intended for disposal	T
Waste, liquid	Liquid wastes intended for disposal	U
Small samples, specimens	Analytical samples or specimens, collected together into a single batch	V

Chemical form

Keyword	Explanation	Code
Elemental	Unalloyed metal	D
Fluoride	Any fluoride except hexafluorides	E
Hex	Hexafluoride	G
Nitrate	Nitrate	J
ADU	Ammonium diuranate	K
Dioxide	Dioxide	Q

[4] Mixed solids will normally appear in categories R and T.
[5] Use no second keyword

Chemical form

Keyword	Explanation	Code
Trioxide	Trioxide	T
Oxide (3/8)	Oxide with formula M_3O_8	U
Other oxides	Other oxides, including mixtures of difference oxides of the same element	R
Oxides, poisoned	Oxides or oxide combinations containing nuclear poison	V
Carbide	Carbide	W
Oxide/graphite	Oxide/graphite mixtures: (e.g. HTR fuels)	X
Carbide/graphite	Carbide/graphite mixtures: (e.g. HTR fuels)	Y
Nitride	Nitride	Z
Organic	Organic compounds	1
Other compounds	Other compounds, salts and their mixtures	2
Al alloys	Aluminium and Al/Si alloys	3
Si alloys	Silicium alloys (except Al/Si alloys) and silicides	4
Zr alloys	Zirconium alloys	5
Mo & Ti alloys	Binary and ternary alloys with molybdenum and titanium	6
Other alloys	Other alloys than those above	7
Miscellaneous	Materials of various chemical forms collected together into a single batch (e.g. analytical samples and specimens)	Ø

Containment

Keyword	Explanation	Code
Uncontained	Material not in container: free-standing items including fuel elements and components, if uncrated[6]	1
Fuel units	Discrete fuel units and components, in shipping or storage containers	2
Flask	Shielded flask for irradiated fuel and other highly irradiated material	3
In-core	Reactor, in-core fuel elements only	4
Vessel, calibrated	Process vessels and tanks, calibrated	5
Vessel, uncal.	Process vessels and tanks, uncalibrated; pipes	6
Tray	Open trays, racks, skips	7
Birdcage	Special, critically safe container	8

[6] Include the uncontained irradiated fuel in cooling ponds in this category.

Containment

Keyword	Explanation	(litres)	Code
Storage containers classified by volume[7]			
"Container" and volume range	Sample bottles and other small container	<0.5	A
	Bottles, fibrepacks, cans	0.5 - 1	E
	Bottles, fibrepacks, cans	>1 - 5	G
	Bottles, fibrepacks, cans and UF_6 cylinders	>5 - 10	H
	Fibrepacks, cans	>10 - 15	J
	Fibrepacks, drums	>15 - 20	K
	Drums	>20 - 50	L
	Drums	>50 - 100	M
	Drums, barrels	>100 - 200	N
	Drums, barrels	>200 - 500	Q
	UF_6 cylinders (2 t)	>500 - 1000	R
	UF_6 cylinders (10-14 t)	>1000 - 5000	U
	Larger containers, e.g. tank trucks	>5000	V
	Other containers		Ø

Irradiation status and quality

Keyword	Explanation	Code [8] non-irradiated	irradiated [9]
Fresh fuel	Fresh fuel elements or assemblies	F	
Irradiated	Irradiated fuel prior to reprocessing		G
Manufactured	Manufactured articles (other than complete fuel elements) for which no sampling is possible, but which are suitable for non-destructive measurement	A	H
Pure, stable	Homogeneous material which has been produced to a tight specification governing purity and stability of both physical and chemical form (e.g. product, intermediate product, certain feed materials)	B	J
Pure	Materials conforming to a high purity specifications, which may be slightly heterogeneous or less stable than the ones above (e.g. certain intermediate products, clean scrap and recycle, feed materials) [10]	C	K
Heterogeneous	Heterogeneous materials of generally similar composition which do not conform to purity specifications (e.g. most scrap and recycle)	D	L
Variable	Heterogeneous materials of variable and/or mixed composition, possibly low in nuclear material content (e.g., dirty scrap, leached hulls, waste)	E	M

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7 Container types are indications only. The overriding classification is by volume.

8 Select one of the two code characters, according to the irradiation status of the material.

9 In this context the term "irradiated" refers to material from which the fission products formed during reactor irradiation have not been separated.

10 Dissolver solution should be put in this category, using the code character K.

435 OPERATOR'S MATERIAL DESCRIPTION CODE

435:*/*** ... ***#

This data element may be used to indicate that the operator's material description code is identical with the code used by the Agency; if they differ, the operator's own code may be shown.

- letter Y indicates that the codes are identical, or a letter N which indicates that the operator's material description code follows;
- slash (/), if operator's code follows; and
- operator's material description code. A maximum of twelve characters may be reported.

436 OPERATOR'S MATERIAL DESCRIPTION (TEXT)

436:*** ... ***#

This data element permits the inclusion of a textual description of the batch if the operator so wishes or as otherwise agreed. The text should be composed of Latin capital letters, numerals and permitted special symbols. A maximum of one hundred characters may be reported.

445 NON-LATIN ALPHABET IDENTIFICATION

445:* #

If non-Latin letters are used in the entry (e.g., in the batch name or encoder's name), an agreed one letter code is to be placed in this data element. Otherwise this label should not be used.[11]

446 BATCH NAME

446:*** ... ***#

The batch name of the nuclear material being reported. In particular, for ICR entries reporting a receipt, the batch name may be one assigned by the reporting MBA or may be the same one used by the shipper as reported in label 447, SHIPPER'S BATCH NAME. It is mandatory that the batch name reported in label 446 be unique to the reporting MBA for any transaction on a single date. A maximum of sixteen characters may be reported.

447 SHIPPER'S BATCH NAME

447:*** ... ***# (447:UNKNOWN#)

This data element is only used in ICR entries reporting a receipt. It is the batch name used by the shipper in the ICR entry reporting the shipment. If the shipper's batch name is unknown, then the keyword UNKNOWN is to be reported. A maximum of sixteen characters may be reported.

469 MEASUREMENT IDENTIFICATION CODE

469:*/*** ... ***/*** ... ***#

This data element consists of three items, of which the first has to be provided for each batch. The second and third are to be given in specified cases only.

- measurement basis code, consisting of one of the letters:
  - N if batch data are based on measurements made at another MBA;
  - L if batch data are based on measurements made at another MBA and have been reported for the present MBA in a preceding ICR or PIL;
  - M if the batch data are based on fresh measurements made at the MBA; and
  - T if the batch data are based on measurements made at the present MBA and have been reported in a preceding ICR or PIL; the measurements have not been repeated;
- slash (/) (if other data items follow);
- in cases denoted by M above, indicate the KMP where the measurement was made if it differs from the KMP named in the data element under label 407; otherwise not needed.
- slash (/) (if other data item follows);
- in cases denoted by M or T above, indicate the method used for the measurement, if so provided in the Facility Attachment, using the agreed codes.

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[11] The transcription tables for non-Latin alphabets should be agreed in advance; the code under this label should refer to the appropriate table.

470 NUMBER OF ITEMS IN BATCH
470:*** ... ***#
The number of similar items of which the batch consists should be given. In the case of bulk material and generally when the number would not be meaningful, a numeric zero should be placed in this data element. This number must be an integer.

600-800 WEIGHT DATA
600:*** ... ***# 610:*** ... ***# 620:*** .. etc. .. 800:*** ... ***#
These data elements provide the quantities of the nuclear material in the batch represented by the entry (record). They are weight data related either to a specific chemical element or to its isotopes, as indicated in the table below. These weight data are to be expressed in the following units:

grams of plutonium (and its isotopes, if appropriate),
grams of total uranium for enriched uranium,
grams of isotopes of uranium,
kilograms of natural uranium, depleted uranium and thorium.

The category of unified uranium shall be reported in grams.

If desired, the data may be rounded, but not beyond the nearest integer of the unit used; this may necessitate the reporting of rounding adjustments in MBRs. If batch data are rounded, this rounding should be done by first adding the weights of the individual items comprising the batch and rounding their sum. It is recommended, though, that data be reported in unrounded figures.

The data element consists of a set of data items with the same format; each of these begins with its own numerical label, followed by a colon (:) and subsequently by the numerical expression of the weight of the element (isotope or their combination of isotopes), indicated by the label; and the letter G, if the weight is expressed in grams, or by the letter K, if the weight is given in kilograms. Weights reported to a higher precision than milligrams will be rounded to the nearest milligram.

The meaning of the individual numeric labels in this data element:

600	'unified' uranium	weight of element
610	natural uranium	- " -
620	depleted uranium	- " -
630	enriched uranium	- " -
640	enriched/'unified' uranium U_{233} content	weight of isotope
650	enriched/'unified' uranium U_{234} content	- " -
660	enriched/'unified' uranium U_{233} + U_{235} content	weight of isotopes
670	enriched/'unified' uranium U_{235} content	weight of isotope
680	Enriched/'unified' uranium U_{236} content	- " -
690	Enriched/'unified' uranium U_{238} content	- " -
700	Plutonium	weight of element
710	Plutonium Pu_{238} content	weight of isotope
720	Plutonium Pu_{239} content	- " -
730	Plutonium Pu_{240} content	- " -
740	Plutonium Pu_{241} content	- " -
750	Plutonium Pu_{242} content	- " -
760	Plutonium Pu_{239} + Pu_{241} content	weight of isotopes
770	natural uranium fissile content	weight of isotope
780	Depleted uranium fissile content	- " -
800	Thorium	weight of element

4. COMPOSITION OF ACCOUNTING REPORTS IN LABELLED FORMAT

Each accounting report contains a number of labels with their associated data elements.

A set of data elements logically connected to each other comprises an entry (record), a set of which (pertaining to the same MBA) is considered as a report.

4.1. P I L

Each Physical Inventory Listing may consist of entries (records) of two types:

- the first type of PIL entry (record) is used for the presentation of nuclear material batch data;
- the second type of PIL entry (record) is used for Concise Notes giving additional textual information not accommodated in any of the data elements of the first type of PIL entries (records)

Each PIL must contain at least one entry (record) of the first type.

4.1.1. Specification of PIL entries (records)

4.1.1.1. The first type of PIL entry (record) includes the following data elements:

001, 002, 003, 006, 010, 015, 207, 307, 309,
310 - optional
390 - mandatory if this entry is referenced by a Concise Note submitted in the same report,
407, 430,
435 - optional, if the operator's material description code differs from the Agency code, represented by data with label 430,
436 - optional,
445 - mandatory if the batch name or encoder's name includes non-Latin letters,
446, 469, 470

and pertinent data with labels between 600-800 which describe the content of the batch and the weight of the nuclear materials; if label 600 or 630 is used, then label 640, 660 or 670 must also be reported. Data covered by labels 650, 680, 690, 710, 720, 730, 740, 750, 760, 770 and 780 are optional, if not required by the Facility Attachment.

4.1.1.2. Each PIL entry (record) of the second type includes the data elements with the following labels:

001, 002, 003, 099, 207, 307, 391 (of these, label 099 is optional).

If a second type entry (Concise Note) is made, the data recorded for labels 001, 207 and 307 must be the same as those recorded for the entry of the first type to which the Concise Note refers, with NC replacing ØI in label 001.

4.1.1.3 A PIL must be prepared even if there was no nuclear material in the MBA at the time of the physical inventory taking. Such a PIL should have a single entry including the following data elements:

001, 002, 003, 006, 010, 015, 207, 307,
309 - with a value of 'U',
310 - optional

4.2. ICR

Each Inventory Change Report may consist of entries (records) of two types.

- the first type of ICR entry (record) is used for the indication of changes in the inventory of nuclear material;
- the second type of ICR entry (record) is used for Concise Notes giving additional textual information not accommodated in any of the data elements of the first type of entries (records)

Each ICR must contain at least one entry (record) of the first type.

4.2.1. Specification of ICR entries (records)

4.2.1.1. The first type of ICR entry (record) includes the following data elements:

001, 002, 003, 006, 010, 015, 207, 307, 309,
310 - optional
370, 372 - mandatory for imports, exports and transfers between MBAs within the State,
390 - mandatory if this entry is referenced by a Concise Note submitted in the same report,
407, 411, 412, 430,
435 - optional, if operator's material description code differs from the Agency code, represented by label 430,
436 - optional,
445 - mandatory, if the batch name or encoder's name includes non-Latin letters,
446
447 - shipper's batch name or keyword UNKNOWN for ICRs reporting receipts
469, 470

and pertinent data with labels between 600-800 which describe the content of the batch and the weight of the nuclear materials; if label 600 or 630 is used, then label 640, 660 or 670 must also be reported. Data covered by labels 650, 680, 690, 710, 720, 730, 740, 750, 760, 770 and 780 are optional, if not required by the Facility Attachment.

4.2.1.2. Each ICR entry (record) of the second type includes the data elements with the following labels:

001, 002, 003, 099, 207, 307, 391 (of these, label 099 is optional).

If a second type entry (Concise Note) is made, the data recorded for labels 001, 207 and 307 must be the same as those recorded for the entry of the first type to which the Concise Note refers, with NC replacing ØI in label 001.

4.3 MBR

Each material Balance Report may consist of entries (records) of two types:

- the first type of MBR entry (record) is used for the presentation of nuclear material balance data;

- the second type of MBR entry (record) is used for Concise Notes giving additional textual information not accommodated in any of the data elements of the first type of MBR entries (records).

Each MBR must consist of at least one entry (record) of the first type.

4.3.1. Specification of MBR entries (records)

4.3.1.1. The first type of MBR entries (records) includes the following data elements:

001, 002, 003, 006, 010, 015, 207, 307, 309,
310 - optional
390 - mandatory if this entry is referenced by a Concise Note submitted in the same report,
411

and pertinent data with labels between 600-800 which describe the content and weight of nuclear materials for which balances are to be reported. If label 600 or 630 is used, then label 640, 660 or 670 must also be reported. Data concerning labels 650, 680, 690, 710, 720, 730, 740, 750, 760, 770 and 780 are optional, if not required by the Facility Attachment.

4.3.1.2. MBR entries (records) or the second type include data elements with the following labels:

001, 002, 003, 099, 207, 307, 391 (of these, 099 is optional.)

If an entry of the second type is made (Concise Note), the data recorded for labels 001, 207 and 307 must be the same as those recorded for entries of the first type in the same report, with NC replacing ØI in label 001.

4.3.1.3 An MBR must be prepared even if at the time of the physical inventory taking there was no nuclear material in the MBA and there were no transactions during the material balance period. Such an MBR should contain a single entry including the following data elements:

001, 002, 003, 006, 010, 015, 207, 307,
309 with a value of 'U'
310 - optional

4.4. Composition of plain text communications to be transmitted on magnetic media

If so desired, freely formulated information not incorporated into formatted accounting reports may be reported to the Agency as separate sets of records accumulated into any number of Textual Reports. Such reports should be formatted as free-standing Concise Notes.

Each such Textual Report must have a unique reference number. It must consist of at least one record. The length of any record in a Textual Report should not exceed a limit of 2000 characters. If the communication is longer than that, the Textual Report should be subdivided into an appropriate number of records.

Each Textual Report record must include the data elements with the following labels:

001, 002, 003, 391 (with the code NC in label 001).

If the text of the communication refers to a specific facility and/or material balance area only, labels 207 and/or 307 may be used to indicate it. If a reference to a specific accounting report is desired, labels 010 and 099 may also be used. If used in this manner, label 099 should be completed as follows:

099:R/***...***# or
099:E/***...***/***...***#

If the letter R is used, it should be followed by a slash and the report number to which the Concise Note refers. If the letter E is used, it should be followed by a slash, a report number, another slash and then the entry number within the report to which the Concise Note refers. (See description of element 099 in Section 3 above).