

Code 10 - model
Articles 59-65, 67

REPORT FORMS AND EXPLANATIONS FOR THEIR USE

INTRODUCTION

Reports to be provided to the Agency consist of three types: Inventory Change Report (ICR), Physical Inventory Listing (PIL) and Material Balance Report (MBR). Concise notes may be provided for any of these reports. For each of the reports and the Concise Note a hard copy proforma is attached; for the ICR two alternative versions are provided.

The attached report forms (see Appendix to this Code) are designed to:

- (a) reflect all the relevant requirements of the Agency;
- (b) lend themselves to automatic processing; and
- (c) permit the use of either keywords or codes.

Explanations for the use of these report forms, the necessary keywords and their codes are given below.

For purposes of identification all reports issued on behalf of a given Material Balance Area - whether they be ICRs, PILs or MBRs - should be numbered consecutively, without gaps or duplications in the sequence.

The proformas attached include header and line type identification codes. These are needed for processing and should be reproduced in all reports.

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

It is understood that automated means may be used for the presentation and transmission of data. Such means should be agreed upon and should take the place of, or be in addition to, the form and format of reports provided in this code.

EXPLANATIONS TO FORM R.01.1/c - INVENTORY CHANGE REPORT

1. Form R.01.1/c should be used for Inventory Change Reports (ICRs) only. This form consists of two types of entries: the heading information and the entry lines. These latter contain the material identification and accountancy data and also a space to indicate whether an explanation for a particular entry is given in the 'concise note' which accompanies the ICR. In addition, Attachments related to some material balance areas may provide for transmission of isotopic composition data. In such cases isotopic data are an indispensable part of batch data and should be reported. For this purpose a second version of the ICR, form R.01.2, is available, which has a section headed 'isotopic data'.

Wherever in these explanations mention is made of form R.01, this refers to the part of the form which both versions have in common.

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Heading Information

2. 'Country', 'facility', 'material balance area': the name or code of the country, the identification (or code) of the facility and the identification (or code) of the material balance area (MBA), as specified in the relevant Attachment, to which the report relates, should be given.
3. 'Period covered by report': in the case of periodic reporting the period covered (beginning and ending date, expressed by year/month/day) should be given.
4. 'Report No.': reports for each MBA should be numbered consecutively (see Introduction on page 27).
5. 'Page No. ... of ... pages': the page number and the total number of pages should be given. If an ICR consists of several pages, the heading information may be omitted from the second and following pages as long as each page bears a number and signature.
6. 'Signature': each page of the report should be signed.

Material (Batch) Identification and Accountancy Data

7. 'Entry No.': each entry line in an ICR should have one unique entry line number in sequential order. This also applies if an ICR consists of several pages and if a batch is to be reported in several entry lines.

With this provision any entry line in reports from a particular MBA can be uniquely identified by reference to the report number and entry (line) number.¹

A report may not include more than 99 entry lines. If more than 99 lines are to be listed, two or more reports should be prepared, each of which must bear a different number.

8. 'Continuation': if the 'C' procedure is used, as described in paragraph 55, a 'C' should be inserted in this column. The letter 'A' may be inserted in this column to indicate that the content of the line in question should not influence any of the nuclear material accounts which means that the line is deactivated. The format of such a line is not subject to any of the limitations described below.
9. 'Date of inventory change': the date (year/month/day), on which the change in inventory occurred or was established, should be given as six numeric digits. This information need not be repeated, if the 'C' procedure is used.
10. 'MBA/country': these columns should show the names or codes of the MBAs between which nuclear material was transferred. In the case of exports, if the MBA to which the material is shipped is unknown, the code of the country concerned should be reported. In the case of imports, the corresponding information about the shipper should be reported. If the inventory change does not involve transfer of materials, the MBA where the change occurred should be indicated either in the 'to' or in the 'from' column, or in both.

This item need not be repeated if the 'C' procedure is used.

¹ See also 'Correction to': (paragraph 23)

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11. 'Type of inventory change': One of the following keywords or their codes should be used in this column in order to indicate the type of inventory change.

<u>Keyword</u>	<u>Code</u>	<u>Explanation</u>
Receipt foreign	RF	Nuclear material imported 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 special 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	Nuclear material exported 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

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<u>Keyword</u>	<u>Code</u>	<u>Explanation</u>
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 shipment 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

Category changes as a result of blending, enrichment or irradiation should be reported as indicated in paragraph 56.

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 as measured by the operator of the receiving MBA
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If the relevant Attachment provides for the application of batch follow-up in the MBA (up to specified points or over the MBA as a whole), this may be performed by reporting the decreases and corresponding increases in the contents of specified batches directly and without associated changes in the total inventory for the MBA. These decreases and matching increases in given batches should be reported simultaneously in separate entries, as if they were inventory changes.

The keywords and codes to be used are the following:

Decrease in batch content	RM	The quantity by which the batch mentioned in the entry is diminished
Increase in batch content	RP	The quantity of material added to the batch mentioned in the entry from another batch

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Since such rebatching entries do not represent inventory changes, they should be ignored during the preparation of a material balance.

This procedure may also be used whenever a batch ceases to exist altogether, i.e. all material is transferred into another batch, and when a batch is simply renamed.

The information provided in this column need not be repeated if the 'C' procedure is used.

12. 'KMP Code': the code of the flow key measurement point where the batch reported was measured, received or shipped, should be given. This entry need not be repeated if the 'C' procedure is used.

13. 'Name or number of batch': the designation (marking) of the batch reported on should be given. No batch name or number may consist of more than 8 characters (Latin letters, numerals, and syntactic signs such as commas, slashes and hyphens). The shipment from one MBA and the receipt in another MBA of a given batch of nuclear material should be reported under the same batch name. No two batches sent from the same shipper to the same receiver relating to material of the same material description should bear the same name. Distinction should be made between the letter "Ø" and zero. This information need not be repeated if the 'C' procedure is used.

14. 'Number of items in batch': the number of similar items of which the batch consists as described in the relevant Attachment should be given. In the case of bulk material and generally when the number of items would not be meaningful, a zero should be placed in this column.

15. 'Material description': this column should be used to describe the nuclear material by the use of four characters with the following codes representing the corresponding keyword:

Character (1): Physical form

<u>Keyword</u>	<u>Explanation</u>	<u>Code</u>
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

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Character (1): Physical form (continued)

Solids, other	Solid materials other than those specified above (e.g. ingots, billets, extrusion pieces), but not mixed materials. ² 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	QS ³
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 ⁴	V

Character (2): Chemical form

<u>Keyword</u>	<u>Explanation</u>	<u>Code</u>
Elemental	Unalloyed metal	D
Fluoride	Any fluoride except hexafluorides	E
Hex	Hexafluoride	G
Nitrate	Nitrate	J
ADU	Ammonium diuranate	K
Dioxide	Dioxide	Q
Trioxide Trioxide	T	
Oxide (3/8)	Oxide with formula M ₃ O ₈	U
Other oxides	Other oxides, including mixtures of different 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

² Mixed solids will normally appear in categories R and T.

³ Use no second keyword.

⁴ Small samples reported as a single batch should be coded VØAE or VØAM, regardless of chemical form and quality. Standards for quality control or non-destructive analysis reported as a single batch should be coded VØAB.

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Character (2): Chemical form (continued)

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

Character (3): Containment

<u>Keyword</u>	<u>Explanation</u>	<u>Code</u>
Uncontained	Material not in container: free-standing items including fuel elements and components, if uncrated ⁵	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

Storage containers classified by volume⁶

		<u>(liters)</u>	
"Container" and volume range	Sample bottles and other small containers	<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

⁵ Include the uncontained irradiated fuel in cooling ponds in this category.

⁶ Container types are indications only. The overriding classification is by volume.

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Character (4): Irradiation status and quality

<u>Keyword</u>	<u>Explanation</u>	<u>Code</u> ⁷	
		<u>non -irradiated</u>	<u>irradiated</u> ⁸
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 specification, which may be slightly heterogeneous or less stable than the ones above (e.g. certain intermediate products, clean scrap and recycle, feed materials) ⁹	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

This information need not be repeated if the 'C' procedure is used.

A list of the Material Description Codes to be used should be annexed to each Attachment.

The shipment from one MBA and receipt in another MBA of a given batch of nuclear material should be reported with the same material description.

⁷ Select one of the two code characters, according to the irradiation status of the material.

⁸ In this context the term "irradiated" refers to material, from which the fission products formed during reactor irradiation have not been separated.

⁹ Dissolver solution should be put in this category, using the code character K.

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16. 'Element': the element name or code of the quantities specified in the subsequent columns should be given. The following codes should be used, unless otherwise indicated in the relevant Attachment:

<u>Keyword</u>	<u>Code</u>
Depleted uranium	D
Natural uranium	N
Enriched uranium	E
Uranium, unified	U
Plutonium	P
Thorium	T

If in a given MBA the code for unified uranium ('U') is used, it replaces codes 'D', 'N' and 'E', which consequently may not be used.

17. 'Weight of element': the weight of the element referred to in the preceding paragraph should be given, expressed in the units specified below:

- (a) Grams of plutonium;
- (b) Grams of total uranium for enriched uranium;
- (c) Kilograms (or, if desired, grams) of thorium, natural uranium and depleted uranium; and
- (d) Grams or kilograms for unified uranium, depending on whether the entry refers to enriched uranium or respectively to depleted or natural uranium. All unified uranium may, if desired, be reported in grams.

If desired, data may be rounded, but not beyond the nearest integer of the unit used.¹⁰ If this is done, the weights of individual items in a batch should be added together before the sum is rounded.¹¹

In reporting unrounded data, the decimal point should be considered as a separate character. Shipper/receiver differences may have to be expressed by negative quantities, in which case the minus sign (which is also a separate character) should be placed in the same column as, and just in front of, the number.

18. 'Unit - kg/g': the unit in which the weight of element is reported should be given.

19. 'Weight of fissile isotopes': the weight of the isotopes U_{235} or U_{233} (or U_{235} and U_{233} combined) should be given in grams, if the quantity pertains to enriched uranium or uranium, unified. For the rules of presentation (algebraic sign, decimal point, rounding) see paragraph 17.

¹⁰ This may necessitate the reporting of rounding adjustments in MBRs. (see paragraph 44).

¹¹ Rounding: digits 1-4 should be rounded off
digits 5-9 should be rounded up

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20. 'Isotope code': to indicate the kind of fissile isotope of which the weight is given in accordance with the previous paragraph, one of the following codes should be used:

	<u>Code</u>
for fissile isotope content of U ₂₃₅ only	G
for fissile isotope content of U ₂₃₅ plus U ₂₃₃	J
for fissile isotope content of U ₂₃₃ only	K

21. 'Measurement basis': this column serves for the indication whether or not the reported batch data are based on measurements made at the MBA and, if not, what they are based on. One of the following keywords or codes should be used:

<u>Keyword</u>	<u>Code</u>	<u>Explanation</u>
Measured	M	The batch data are based on measurements made at the MBA, including KMPs on its boundary
Measured elsewhere	N	The batch data are based on measurements made at another MBA
Tagged	T	The batch data are based on measurements previously made at the same MBA and have been reported for that MBA in an ICR or PIL and the measurements have not been repeated
Labelled	L	The batch data are based on measurements previously made at another MBA and have been reported for the present MBA in an ICR or PIL without remeasurement

Whenever at a KMP only certain - but not all - quantity parameters are measured (e.g. weight of total uranium in a batch), whereas other parameters are accepted at face value (e.g. enrichment as stated by the shipper), the keyword to be applied is 'measured'.

22. 'Concise note': this column may be used to indicate by the insertion of 'X' that an explanation of or amplification to the entry is contained in the concise note accompanying the report.

23. 'Correction to': this column is to be used to correct an entry line in an earlier or in the same ICR. The number of the report and of the line therein which is to be corrected should be given. The remainder of the line should repeat the entire line of the original entry, except that those data which it is intended to correct should be amended as desired. In addition, when an entry line bearing the mark of the 'C' procedure has to be corrected, all data normally omitted from these entry lines should be filled in.

If the correction consists of adding one or more lines to the original report, the line numbers indicated in this column should be the number of the last line in the original report plus 1, 2, etc.

Isotopic Data

Paragraphs 24 to 28 refer only to version R.01.2 of the ICR form.

24. "To entry No.": In this column the entry line number of the related batch data should be repeated in order to permit the related data to be connected; thus, uranium and plutonium should be entered on different lines, with a reference to the respective entry line above them.
25. "Continuation": see paragraph 8.
26. "% U₂₃₃.....% Pu₂₄₂": The weight percentages of the indicated isotopes should be given with a precision to at least two decimals, if and as specified in the relevant Attachment.
27. "Measurement basis": see paragraph 21, above.
28. "Correction to: see paragraph 23, above.

EXPLANATION TO FORM R.02/c - PHYSICAL INVENTORY LISTING

29. This report form should be used for Physical Inventory Listings (PILs) only. A Physical Inventory Listing should be attached to each Material Balance Report or set of Material Balance Reports for different material categories (see paragraph 44) pertaining to the same period.

A PIL should be prepared even if at the time of the physical inventory taking there was no nuclear material in the MBA. Such a PIL should contain the heading information, and one line entry with 'A' in position 3. The remainder of the line should be blank.

Heading Information

30. These items are to be handled as those for R.01.1/c: see paragraphs 2 and 4 - 6. The date specified should be the (effective) date of the physical inventory taking. This date should coincide with the closing date of the period covered by the corresponding MBR.

Material (Batch) Identification and Accounting Data

31. 'Entry No.': each entry line in a PIL should have one unique number in sequential order. This also applies if a PIL consists of several pages. A report may not include more than 99 entry lines. If more than 99 entry lines are to be listed, two or more reports should be prepared.
32. 'Continuation': this column should be used to indicate that the entry line in question contains information under the 'C' procedure, described in paragraph 55. The letter 'A' may be placed in this column to deactivate the line (see paragraph 8).
33. 'KMP code: as in paragraph 12, but for inventory key measurement points.
34. 'Name or number of batch': see paragraph 13.

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- 35. 'Number of items in batch': see paragraph 14.
- 36. 'Material description': see paragraph 15.
- 37. 'Element': see paragraph 16.
- 38. 'Weight of element': see paragraph 17.
- 39. 'Unit kg/g': see paragraph 18.
- 40. 'Weight of fissile isotopes': see paragraph 19.
- 41. 'Isotope code': see paragraph 20.
- 42. 'Measurement basis': see paragraph 21.
- 43. 'Correction to': see paragraph 23. PIL entries may be corrected at any time but only in another PIL.

EXPLANATIONS TO FORM R.03 - MATERIAL BALANCE REPORTS

- 44. This report form should be used for Material Balance Reports (MBRs) only.

MBRs should be prepared on the basis of unrounded nuclear material quantity data obtained from the accounting records. Where the preparation of entry data requires summation (straightforward or algebraic), this also should be done with unrounded data. For reporting, these data may be rounded, but not beyond the nearest integer units. The use of rounding in any of the reports (ICRs, PILs or MBRs themselves) will generally necessitate the calculation and reporting of rounding adjustments in MBRs.

Unless otherwise indicated in the relevant Attachment, separate MBRs should be prepared for each category of nuclear material as listed in paragraph 16 above. However, no MBR is required for a category of nuclear material that is established only upon shipment of that material, and for the exclusive purpose of reporting such a shipment: see 'Category change procedure', paragraph 56.

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 the heading information, and one line entry with 'A' in position 3. The remainder of the line should be blank.

Several MBRs may be transmitted together under the same report number.

Heading Information

- 45. These items are to be handled as for form R.01.1/c: see paragraphs 2 - 6, as applicable.

The period to which the MBR pertains should be deemed to be closed at midnight of the 'to' date indicated; i.e. any inventory change taking place on that date should be considered as being covered by the MBR. The next material balance period should begin at zero hour of the next day.

Column Description

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46. 'Entry No.': each line entry in an MBR should have one unique entry number in sequential order. This also applies if an MBR consists of several pages.

47. 'Continuation': if it is necessary to report an MBR entry in several lines (e.g. if quantity data are represented by numbers with more than eight digits and have to be broken down into smaller ones), a 'C' may be inserted in the 'Continuation' column in order to indicate that an entry line is a continuation of the preceding one. See also paragraph 55.

The letter 'A' may be placed in this column to deactivate the line, as described in paragraph 8.

48. 'Entry name': in this column the following keywords or their codes should be used, in any sequence deemed appropriate.

<u>Keyword</u>	<u>Code</u>	<u>Explanation</u>
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 keywords and codes relating to various types of inventory change see paragraph 11 of these explanations.		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; list first increases in the inventory and then decreases therein; receipts of nuclear material at the facility should be entered on shipper's data. Category changes as a result of blending, enrichment or irradiation should be reported as indicated in paragraph 56.
Ending book inventory ¹²	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.
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 adjusted ending book inventory and the physical inventory.

¹² This entry is optional.

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<u>Keyword</u>	<u>Code</u>	<u>Explanation</u>
Rounding adjustment to entry XX	RAXX	<p>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.</p> <p>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.</p> <p>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:</p> $\begin{aligned} \text{RABE} &= \text{PB} + \text{IC}_{\text{MBR}} - \text{BE} \\ \text{RABA} &= \text{PB} + \text{IC}_{\text{MBR}} - \text{DI} - \text{BA} \\ \text{RAMF} &= \text{BA} - \text{PE} - \text{MF}, \end{aligned}$ <p>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.</p>

49. 'Element': see paragraph 16.

50. 'Weight of element': see paragraph 17. Shipper/receiver differences, rounding adjustments and the material unaccounted for may be represented by negative numbers.

51. 'Unit kg/g': see paragraph 18.

52. 'Weight of fissile isotopes': see paragraph 19. Shipper/receiver differences, rounding adjustments and the material unaccounted for may be represented by negative numbers.

53. 'Isotope code': see paragraph 20.

54. 'Corrections to': see paragraph 23. MBR entries may be corrected at any time but only in another MBR.

SPECIAL ACCOUNTING PROCEDURES

55. 'C' procedure: if a batch consists of several types of nuclear material belonging to several element categories or if the amount of nuclear material to be entered would require more than 8 digits and this cannot be accommodated in a single line, several consecutive lines should be used. To indicate that an entry line is the continuation of the preceding one, a 'C' may be inserted in this column. In such cases there is no need to repeat the batch identification data in ICRs and PILs, or the 'Entry name' in MBRs.

The entry line should carry its own line number as referred to in paragraphs 7, 31 and 46, respectively.

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56. 'Category change procedure': where various categories of uranium (as listed in paragraph 16) are blended and accordingly combined into a single category, or where uranium changes its category as a result of blending, enrichment, depletion or burn-up, the resulting change should be reported by means of an entry in the pertinent reports, if the Attachment so indicates. For ICRs there should be a single entry as follows:

- 'Entry No.'
- 'Continuation': blank.
- 'Date of inventory change': the date when the information was established.
- 'From': the MBA where the change took place.
- 'To': blank.
- 'Type of inventory change': To indicate the material category change, this heading should be used as follows:

First character: 'original' element code
Second character: 'resulting' element code

(EN, ED, NE, DN, DE or ND, as appropriate)

- 'KMP code': code of KMP at which category change is established, or " * " if the category change occurs within a process area.
- 'Name or number of batch': as appropriate.
- 'Number of items in batch': as appropriate.
- 'Material description': as appropriate for the 'resulting' category.
- 'Element': the element code to be used is that of the 'higher' category in the keyword as given in the column 'Type of inventory change', (E>N>D).
- 'Weight of element': as appropriate, with units on the basis of the 'higher' category.
- 'Unit kg/g': as above.
- 'Weight of fissile isotopes': as above.
- 'Isotope code': as appropriate.
- 'Measurement basis': as appropriate.
- 'Concise note': if applicable.
- 'Correction to': if applicable.

For MBRs the consolidated category changes should be reported as a decrease for the material balance pertaining to the category in which the uranium which has changed category originated, and as an increase for the material balance pertaining to the resulting uranium category. The keyword appropriate for the category change should be used as for ICRs and the 'element', 'unit' and 'weight of fissile isotopes' will be reported pursuant to the category covered in the MBR. If the resulting uranium category is established only upon shipment and for the exclusive purpose of reporting such a shipment, it will be reported only in the relevant ICR and no MBR shall be required for that category.

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APPENDIX TO CODE 10

REPORT FORMS

Inventory Change Report (ICR)	Form R.01.1/c
Physical Inventory Listing (PIL)	Form R.02/c
Material Balance Report (MBR)	Form R.03
Concise Note Form	

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INVENTORY CHANGE REPORT (ICR) FORM R.01.1/c																			
COUNTRY.....										PERIOD COVERED BY REPORT FROM..... TO.....									
FACILITY.....										REPORT NO.....									
MATERIAL BALANCE AREA.....										PAGE NO..... OFPAGES					SIGNATURE				
1	5	9	13	19	25	28	31			70	74	80							
												1							
ENTRY NO.	CONTINUATION	DATE OF INVENTORY CHANGE	MBA/COUNTRY		TYPE OF INVENTORY CHANGE	KMP CODE	NAME OR NUMBER OF BATCH	NUMBER OF ITEMS IN BATCH	MATERIAL DESCRIPTION	ACCOUNTANCY DATA					CORRECTION TO				
			FROM	TO						ELEMENT	WEIGHT OF ELEMENT	UNIT kg/g	WEIGHT OF FISSILE ISOTOPES (URANIUM ONLY) (g)	ISOTOPE CODE	MEASUR. BASIS	CONCISE NOTE	REPORT NO.	ENTRY NO.	
1	3	4	10	11	18	20	21	29	33	37	38	46	48	56	72	73	74	78	80
																			2
																			2
																			2
																			2
																			2
																			2
																			2
																			2
																			2
																			2
																			2
																			2
																			2

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MATERIAL BALANCE REPORT (MBR) FORM R.03													
COUNTRY				REPORTING PERIOD, FROM TO									
FACILITY				REPORT NO.									
MATERIAL BALANCE AREA				PAGE NO. OF PAGES						SIGNATURE			
1	5	9		25	28	31	45	52	70	74	80		
												6	
ENTRY NO.	CONTINUATION	ENTRY NAME	ELEMENT	ACCOUNTANCY DATA				ISOTOPE CODE	CONCISE NOTE	CORRECTION TO			
				WEIGHT OF ELEMENT	UNIT kg/g	WEIGHT OF FISSILE ISOTOPES (URANIUM ONLY) (G)	REPORT NO.			ENTRY NO.			
1	3	18	37	38	46	48	56	73	74	78	80		
												7	
												7	
												7	
												7	
												7	
												7	
												7	
												7	
												7	

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CONCISE NOTE		
COUNTRY:	ATTACHED TO REPORT NUMBER:	DATE:
FACILITY:		
MBA:	SIGNATURE:	

	MBA	REPORT	ENTRY	TEXT OF CONCISE NOTE (UP TO 68 CHARACTERS PER LINE)	
C					C
C					C
C					C
C					C
C					C
C					C
C					C
C					C
C					C
C					C
C					C
C					C
C					C
C					C