Proposal for a Council Decision approving a Commission Regulation on the application of Euratom safeguards

(2002/C 227 E/02)

COM(2002) 99 final

(Submitted by the Commission on 22 March 2002)

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Articles 77, 78, 79 and 81 thereof,

Having regard to the proposal from the Commission,

Whereas:

It is important to keep the requirements imposed by Commission Regulation (Euratom) No 3227/76 of 19 October 1976 concerning the application of the provisions on Euratom safeguards [1] in line with the present legal framework and developments in the fields of nuclear and information technology,

HAS DECIDED AS FOLLOWS:

Sole Article

The Commission Regulation on the application of Euratom safeguards is hereby approved.

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[1] OJ L 363, 31.12.1976, p. 1. Regulation as last amended by Regulation (Euratom) No 2130/93 (OJ L 191, 31.7.1993, p. 75).

Draft Commission Regulation (Euratom) No .../... of ... on the application of Euratom safeguards

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Articles 77, 78, 79 and 81 thereof,

Having regard to the approval of the Council,

Whereas:

(1) Commission Regulation (Euratom) No 3227/76 of 19 October 1976 concerning the application of the provisions on Euratom safeguards [1], as last amended by Regulation (Euratom) No 2130/93 [2], defined the nature and extent of the requirements referred to in Articles 78 and 79 of the Treaty.

(2) In view not only of the increasing quantities of nuclear materials produced, used, carried and recycled in the Community, but also of the development of trade in these materials and of the further enlargement of the European Union, it is essential, in order to ensure the effectiveness of safeguards, that the nature and the extent of the requirements referred to in Article 79 of the Treaty and set out in Regulation (Euratom) No 3227/76 be brought up to date in the light of developments, particularly in the fields of nuclear and information technology.

(3) The Republic of Austria, the Kingdom of Belgium, the Kingdom of Denmark, the Republic of Finland, the Federal Republic of Germany, the Hellenic Republic, Ireland, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands, the Portuguese Republic, the Kingdom of Spain, the Kingdom of Sweden and the European Atomic Energy Community are parties to an Agreement [3] with the International Atomic Energy Agency in implementation of Article III(1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons. This Agreement entered into force on 21 February 1977 and was supplemented by an Additional Protocol [4] signed on 22 September 1998.

(4) The Agreement contains a particular undertaking entered into by the Community concerning the application of safeguards on source and special fissile materials in the territories of the Member States which have no nuclear weapons of their own and which are parties to the Treaty on the Non-Proliferation of Nuclear Weapons.

(5) The procedures stipulated by the Agreement are the result of wide-ranging international negotiations with the International Atomic Energy Agency on the application of Article III(1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons. These procedures were approved by the Board of Governors of that Agency.

(6) The Community, the United Kingdom and the International Atomic Energy Agency are parties to an Agreement for the application of safeguards in the United Kingdom in connection with the Treaty on the Non-Proliferation of Nuclear Weapons [5]. That Agreement entered into force on 14 August 1978, and was supplemented by an Additional Protocol signed on 22 September 1998.

(7) The Community, France and the International Atomic Energy Agency are parties to an Agreement for the application of safeguards in France [6]. That Agreement entered into force on 12 September 1981, and was supplemented by an Additional Protocol signed on 22 September 1998.

(8) In the territories of France and the United Kingdom some installations or parts thereof as well as certain materials are liable to be involved in the production cycle for defence needs. Special safeguard procedures should therefore be applied to take account of these circumstances.

(9) The European Council at its meeting in Lisbon on 23 and 24 March 2000 stressed the need to foster the development of state-of-the-art information technology and other telecom networks as well as the content for those networks.

(10) In view of the foregoing, Regulation (Euratom) No 3227/76 should be repealed and replaced,

HAS ADOPTED THIS REGULATION:

PART I

SCOPE AND DEFINITIONS

Article 1

Scope

This Regulation sets out the requirements for the application of Euratom safeguards.

It shall not apply to holders of end products used for non-nuclear purposes which incorporate nuclear materials that are irrecoverable.

[1] OJ L 363, 31.12.1976, p. 1.

[2] OJ L 191, 31.7.1993, p. 75.

[3] OJ L 51, 22.2.1978, p. 1.

[4] OJ L 67, 13.3.1999, p. 1.

[5] IAEA document INFCIRC/263 dated October 1978.

[6] IAEA document INFCIRC/290 dated December 1981.

Article 2

Definitions

For the purposes of this Regulation, the following definitions shall apply:

1. 'Non-nuclear-weapon Member State' means Belgium, Denmark, Germany, Greece, Spain, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, or Sweden.

2. 'Nuclear-weapon Member State' means France or the United Kingdom.

3. 'Third country' means any State which is not a member of the European Atomic Energy Community.

4. 'Nuclear materials' means ores, source materials and special fissile materials as defined in Article 197 of the Treaty.

5. 'Waste' means nuclear material in concentrations or chemical forms which do not permit recovery at present and which may be disposed of.

6. 'Retained waste' means waste, measured or estimated on the basis of measurements, which has been transferred to a specific location within the material balance area from which it could be retrieved. Waste belonging to this category has not yet been conditioned and is regarded as economically irrecoverable by current technology.

7. 'Conditioned waste' means waste, measured or estimated on the basis of measurements, which has been conditioned in such a way (for example, in glass, cement, concrete or bitumen) that it is not suitable for further nuclear use.

8. 'Discards to the environment' means waste, measured or estimated on the basis of measurements, which has been irrevocably discarded to the environment as the result of a licensed discharge.

9. 'Category' (of nuclear material) means natural uranium; depleted uranium; uranium enriched in uranium-235 or uranium-233; thorium; plutonium; and any other material which the Council may determine, acting by a qualified majority on a proposal from the Commission.

10. 'Item' means an identifiable unit such as a fuel assembly or a fuel pin.

11. 'Batch' means 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 identifiable items.

12. 'Batch data' means the total weight of each element of nuclear material and, in the case of plutonium and uranium, the isotopic composition when appropriate. For reporting purposes the weights of individual items in the batch shall be added together before rounding to the nearest unit.

13. 'Book inventory' of a material balance area means the algebraic sum of the most recent physical inventory of that material balance area, and of all inventory changes that have occurred since that physical inventory was taken.

14. 'Effective kilogram' is a special unit used in safeguarding nuclear material, obtained by taking:

    (a) for plutonium, its weight in kilograms;

    (b) for uranium with an enrichment of 0,01 (1 %) and above, its weight in kilograms multiplied by the square of its enrichment;

    (c) for uranium with an enrichment below 0,01 (1 %) and above 0,005 (0,5 %), its weight in kilograms multiplied by 0,0001; and

    (d) for depleted uranium with an enrichment of 0,005 (0,5 %) or below, and for thorium, its weight in kilograms multiplied by 0,00005.

15. 'Key measurement point' means a location where nuclear material appears in such a form that it may be measured to determine material flow or inventory, including but not limited to, the places where nuclear material enters, leaves or is stored in, material balance areas.

16. 'Material balance area' means an area such that, for the purpose of establishing the material balance:

    (a) the quantity of nuclear material in each transfer into or out of each material balance area can be determined; and

    (b) the physical inventory of nuclear material in each material balance area can be determined when necessary in accordance with specified procedures.

17. 'Material unaccounted for' means the difference between physical inventory and book inventory.

18. 'Physical inventory' means the sum of all the measured or derived estimates of batch quantities of nuclear material on hand at a given time within a material balance area, obtained in accordance with specified procedures.

19. 'Shipper/receiver difference' means the difference between the quantity of nuclear material in a batch as measured at the receiving material balance area and as stated by the shipping material balance area.

20. 'Source data' means those data, recorded during measurement or calibration or used to derive empirical relationships, which identify nuclear material and provide batch data, including: weight of compounds; conversion factors to determine weight of element; specific gravity; element concentration; isotopic ratios; relationship between volume and manometer readings; and relationship between plutonium produced and power generated.

21. 'Site' means an area delimited by the Community and the Member State, comprising one or more installations, including closed-down installations, as defined in their relevant basic technical characteristics.

    In the case of a closed-down installation where nuclear material in quantities less than one effective kilogram was customarily used, the term is limited to locations with hot cells or where activities related to conversion, enrichment, fuel fabrication or reprocessing were carried out.

    'Site' also includes all plants co-located with the installations which provide or use essential services including hot cells for processing irradiated materials not containing nuclear material; plants for the treatment, storage and disposal of waste; and buildings associated with activities specified in Annex 1 of the Additional Protocols and identified by the State concerned.

22. 'Site representative' means any person or undertaking designated by the Member State as being responsible for the communications referred to in Article 3(2).

23. 'Installation' means a reactor, a critical installation, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant, a separate storage installation, a waste handling, storing and processing installation; or any other location where nuclear material is customarily used.

24. 'Decommissioned installation' means an installation or location at which residual structures and equipment essential for its use have been removed or rendered inoperable so that it is not used to store and can no longer be used to handle, process or utilise nuclear material.

25. 'Closed-down installation' means an installation or location where operations have been stopped and the nuclear material removed but which has not been decommissioned.

PART II

BASIC TECHNICAL CHARACTERISTICS AND PARTICULAR SAFEGUARD PROVISIONS

Article 3

Declaration of the basic technical characteristics

1. Any person or undertaking setting up or operating an installation for the production, separation, reprocessing, storage or any use of nuclear materials shall declare to the Commission the basic technical characteristics of the installation, on the basis of the relevant questionnaire shown in Annex I.

For the purpose of this Article 'use' of nuclear materials is taken to include *inter alia*: power production in reactors, research in critical or zero energy installations, conversion, fabrication, reprocessing, storage, isotope separation, ore production and ore concentration, as well as conditioning and storage of waste.

2. Each Member State being a party to the Additional Protocol to the Agreement, signed on 22 September 1998, shall designate a site representative for each site on its territory. Any person or undertaking designated as site representative shall forward to the Commission a declaration containing a general description of the site, on the basis of the questionnaire shown in Annex II.

The declaration shall be submitted within 90 days of the entry into force of the Additional Protocol and updates shall be submitted by 31 January of each year.

The declaration shall fulfil the requirements of Article 2(a)(iii) of the Additional Protocol, and shall be separate from the declaration required pursuant to paragraph 1 of this Article.

3. The declarations provided for in paragraphs 1 and 2 shall be submitted in electronic form if they are kept in such form by the person or undertaking.

Article 4

Time limits

The declaration of the basic technical characteristics of new installations shall be communicated to the Commission in accordance with Article 3(1) at least 200 days before the first consignment of nuclear material is due to be received.

For new installations with an inventory or annual throughput of nuclear material, whichever is the greater, of more than one effective kilogram, all relevant information relating to the owner, operator, purpose, location, type, capacity and expected commissioning date shall be communicated to the Commission at least 200 days before construction begins.

Using the questionnaire in Annex I, existing waste handling and processing installations and ore producers shall communicate to the Commission the basic technical characteristics of their installation within 30 days of the date on which this Regulation enters into force.

Any additional information required by the questionnaire in Annex I shall be supplied within 30 days of the date on which this Regulation enters into force.

Article 5

Adoption of particular safeguard provisions and changes to basic technical characteristics

The particular safeguard provisions set out in Article 7 shall be drawn up by means of an individual decision of the Commission after consulting the person or undertaking concerned and the relevant Member State.

The person or undertaking affected by any individual decision of the Commission shall be notified thereof, and a copy of such notification shall be transmitted to the Member State concerned.

The particular safeguard provisions shall specify *inter alia* those changes in the basic technical characteristics set out in Article 3(1) for which advance notification is required. Any other changes in the basic technical characteristics shall be communicated to the Commission within 30 days after the modification is complete.

Article 6

Programme of activities

To enable the Commission to plan its safeguards activities, the persons or undertakings referred to in Article 3(1) shall also communicate to the Commission the following information:

(a) annually, an outline programme of activities on the basis of the guidelines given in Annex XI, indicating, in particular, provisional dates for taking a physical inventory;

(b) at least 40 days before taking a physical inventory, the programme for such work.

Any change affecting the outline programme of activities and, in particular, the taking of physical inventories shall be communicated to the Commission without delay.

Article 7

Particular safeguard provisions

1. The Commission shall adopt particular safeguard provisions relating to the matters set out in paragraph 2.

Acting on the declarations of basic technical characteristics and on the information communicated pursuant to Article 6, the Commission may specify in particular the means by which the persons or undertakings concerned shall meet the safeguards requirements.

2. The particular safeguard provisions shall specify, *inter alia*:

(a) the material balance areas and the selection of those key measurement points for determining the flow and stocks of nuclear materials;

(b) the procedures for keeping records of nuclear materials for each material balance area and for drawing up reports;

(c) the frequency of, and procedures for, taking physical inventories for accounting purposes as part of safeguards measures;

(d) the containment and surveillance measures, in accordance with the arrangements agreed upon with the plant operators;

(e) the arrangements for sample-taking by the plant operator solely for safeguards purposes.

3. The particular safeguard provisions may also specify the content of subsequent communications required under Article 6 of this Regulation as well as the conditions requiring advance notification of shipments and receipts of nuclear material.

4. The Commission shall reimburse the person or undertaking concerned the cost of those special services which are provided for in the particular safeguard provisions or which are provided as the result of a special request by the Commission or its inspectors, on the basis of an agreed estimate. The amount of, and arrangements for, the reimbursement shall be jointly determined by the parties concerned and shall be reviewed periodically.

PART III

NUCLEAR MATERIAL ACCOUNTANCY

Article 8

Accounting system

The persons and undertakings referred to in Article 3(1) shall maintain a system of accountancy and control for nuclear materials. This system shall include accounting and operating records and, in particular, information on the quantities, nature, form and composition of these materials as required under Article 19, their actual location and the particular safeguards obligation as provided for in Article 18, together with details of the recipient or shipper when nuclear materials are transferred.

The system of measurements on which the records are based shall comply with the most recent international standards or shall be equivalent in quality to those standards. On the basis of these records it must be possible to draw up and substantiate the declarations made to the Commission. Records shall be retained for a period of at least five years. Accounting and operating records shall be made available to the inspectors in electronic form if they are kept in this form by the installation. Further details may be specified in the particular safeguard provisions for each installation.

Article 9

Operating records

For each material balance area, the operating records shall include, where appropriate:

(a) the operating data used to determine changes in the quantities and composition of nuclear material;

(b) a list of inventory items present, and their location, at any time;

(c) the data, including derived estimates of random and systematic errors, obtained from the calibration of tanks and instruments as well as from sampling and analysis;

(d) the data resulting from quality control measures, including derived estimates of random and systematic errors, applied to the nuclear material accountancy system;

(e) a description of the sequence of actions taken to prepare for, and take, a physical inventory, and to ensure that the inventory is correct and complete;

(f) a description of the actions taken in order to ascertain the cause and magnitude of any accidental or unmeasured loss that might have occurred;

(g) the isotopic composition of plutonium, including its decay isotope americium-241, and reference dates.

Article 10

Accounting records

The accounting records shall show in respect of each material balance area:

(a) all inventory changes, so that the book inventory can be determined at any time;

(b) all measurement and counting results used to determine the physical inventory;

(c) all corrections made to inventory changes, book inventories and physical inventories.

The accounting records relating to any inventory change and physical inventory shall show the material identification, batch data and source data for each batch. These records shall account separately for uranium, thorium and plutonium, in accordance with the categories listed in Article 19(2)(b). In addition, for each inventory change, the date of the change and, when appropriate, the dispatching material balance area and the receiving material balance area or the recipient shall be indicated.

Article 11

Accounting reports

The persons and undertakings referred to in Article 3(1) shall provide the Commission with accounting reports.

The accounting reports shall contain the information available on the date of reporting and must be corrected at a later date if necessary. Accounting reports shall be transmitted to the Commission in electronic form, except in cases where the Commission has granted a written derogation.

On a reasoned request by the Commission, further details or explanations in connection with these reports shall be supplied within three weeks.

Article 12

Initial inventory

If they have not already done so, the persons and undertakings referred to in Article 3(1) shall transmit to the Commission an initial book inventory of all nuclear materials they are holding, in accordance with Annex V.

Article 13

Inventory change report

For each material balance area, the persons and undertakings referred to in Article 3(1) shall transmit to the Commission inventory change reports in respect of all nuclear materials in accordance with Annex III.

These reports shall be sent as soon as possible and, at the latest, within 15 days of the end of the month in which the inventory changes occur or become known. For months in which no inventory changes occur, the persons or undertakings concerned may simply send in the inventory change report, carrying over the ending book inventory of the previous month. In order that they may be reported as a single inventory change, small inventory changes, such as transfers of samples for purposes of analysis, may be grouped together, as laid down in the particular safeguard provisions referred to in Article 7 for the installation concerned. Inventory change reports may be accompanied by comments explaining the inventory changes.

Article 14

Material balance report and physical inventory listing

For each material balance area, the persons and undertakings referred to in Article 3(1) shall transmit to the Commission:

1. Material balance reports, in accordance with Annex IV, showing:

   (a) beginning physical inventory;

   (b) inventory changes (first increases, then decreases);

   (c) ending book inventory;

   (d) ending physical inventory;

   (e) material unaccounted for.

2. A physical inventory listing, in accordance with Annex V, showing all batches separately.

The reports and the listing shall be transmitted as soon as possible and at the latest within 30 days of the date on which a physical inventory was taken.

Unless otherwise specified in the particular safeguard provisions for an installation, a physical inventory shall be taken every calendar year and the period between two successive physical inventory takings shall not exceed 14 months.

Article 15

Special reports

The persons and undertakings referred to in Article 3(1) shall transmit to the Commission a special report whenever the circumstances referred to in Articles 16 or 23 arise.

The type of information to be supplied in such reports will be specified in the particular safeguard provisions.

The special reports, and further details or explanations which may be requested by the Commission in connection with these reports, shall be supplied without delay.

Article 16

Unusual occurrences

A special report shall be made without delay:

(a) if, as a result of any unusual incident or circumstances, it is believed that there has been or might be a loss of nuclear material in excess of the limits specified for these purposes in the particular safeguard provisions;

(b) if the containment has unexpectedly changed from that specified in the particular safeguard provisions, to a point where an unauthorised removal of nuclear material has become possible.

The persons and undertakings concerned shall submit these reports as soon as they have become aware of any such loss or sudden change in the containment conditions, or of anything which leads them to believe that there has been such an occurrence. The causes shall also be stated as soon as they are known.

Article 17

Reporting of nuclear transformations

In respect of reactors, calculated data on nuclear transformations shall be reported in the inventory change report at the latest when irradiated fuel is transferred from the reactor material balance area. In addition, other procedures for recording and reporting nuclear transformations may be specified in the particular safeguard provisions.

Article 18

Particular safeguard obligations

Nuclear materials subject to particular safeguard obligations entered into by the Community in an agreement concluded with a third country or an international organisation shall, unless otherwise stipulated by such an agreement, be identified separately for each obligation in the following notifications:

(a) initial book inventory provided for in Article 12;

(b) inventory change reports, including book inventories provided for in Article 13;

(c) material balance reports and physical inventory listings provided for in Article 14;

(d) intended imports and exports provided for in Articles 21 and 22.

Unless specifically prohibited in any of the agreements referred to in the first subparagraph, such separate identification shall not preclude the physical mixing of materials.

Article 19

Categories of nuclear materials and weight units

1. In any notification referred to in this Regulation, quantities of materials covered by the Regulation shall be expressed in grams.

The corresponding material accounting records shall be kept in grams or in smaller units. They shall be kept in such a manner as to render them trustworthy and, in particular, to comply with current practices in the Member States.

In the notifications, quantities may be rounded down when the first decimal is 0 to 4 and rounded up when the first decimal is 5 to 9.

2. Unless otherwise provided for in the particular safeguard provisions the notifications shall include the following:

(a) the total weight of the elements uranium, thorium or plutonium, and also, for enriched uranium, the total weight of the fissile isotopes;

(b) separate material balance reports as well as separate line entries in inventory change reports and in physical inventory listings for the following categories of nuclear material:

(i) depleted uranium;

(ii) natural uranium;

(iii) uranium enriched to less than 20 %;

(iv) uranium enriched to 20 % and above;

(v) plutonium;

(vi) thorium.

Article 20

Derogations

1. The Commission may grant producers and users of nuclear materials a written derogation from the rules governing the form and frequency of notification provided for in Articles 11 to 19, in order to take account of any particular circumstances in which safeguarded materials are used or produced.

The derogation shall be granted on submission of a request by the persons or undertakings concerned based on the form set out in Annex IX.

The derogation shall be granted only for a whole material balance area in which nuclear material is not processed or stored together with nuclear material for which no derogation can be granted.

2. The Commission may grant a derogation for a material balance area holding:

(a) only small quantities of nuclear material which are kept in the same state for long periods;

(b) depleted uranium, natural uranium or thorium which is used exclusively in non-nuclear activities;

(c) special fissile materials which are used in quantities of the order of one gram or less as sensing components in instruments;

(d) plutonium with an isotopic concentration of plutonium-238 exceeding 80 %.

3. The persons or undertakings to whom a derogation is granted shall transmit to the Commission an annual report by 31 January of each year, using the form set out in Annex X. This report shall describe the situation at the end of each calendar year.

4. In the case of exports to a third country of nuclear material subject to derogation, the persons or undertakings concerned shall transmit a report to the Commission by the end of the month in which the transfer occurred, using the form set out in Annex X. This report shall indicate the quantity of nuclear material exported and the stock of nuclear material still subject to derogation.

5. In the case of imports from a third country of nuclear material which may qualify for a derogation, the persons or undertakings to whom a derogation is granted shall transmit a new request to the Commission to add this material to the list of materials in respect of which a derogation applies. The request shall be transmitted to the Commission as soon as the persons or undertakings are aware of the transfer date and, at the latest, by the end of the month in which the transfer occurred. The form set out in Annex IX shall be used for this purpose.

6. The Commission may establish other specific requirements in the particular safeguard provisions.

7. If the conditions for derogation are no longer met, the derogation shall be withdrawn by the Commission, acting upon receipt of information from the persons or undertakings to whom a derogation is granted.

PART IV

TRANSFERS BETWEEN STATES

Article 21

Export and shipment of nuclear material

1. The persons and undertakings referred to in Article 3(1) shall give advance notification to the Commission if any source materials or special fissile materials:

(a) are exported to a third country;

(b) are shipped from a non-nuclear-weapon Member State to a nuclear-weapon Member State;

(c) are shipped from a nuclear-weapon Member State to a non-nuclear-weapon Member State.

2. Advance notification is required only:

(a) where the consignment exceeds one effective kilogram; or

(b) where an installation transfers a total quantity of materials to the same State that could exceed one effective kilogram in any consecutive period of twelve months, even though no single consignment exceeds one effective kilogram.

3. The notification shall be given after the conclusion of the contractual arrangements leading to the transfer, using the form set out in Annex VI, and shall reach the Commission at least eight working days before the material is to be packed for transfer.

4. If so required for reasons of physical protection, special arrangements concerning the form and transmission of such notification may be agreed upon with the Commission.

Article 22

Import and reception of nuclear materials

1. The persons and undertakings referred to in Article 3(1) shall give advance notification to the Commission if any source materials or special fissile materials:

(a) are imported from a third country;

(b) are received in a non-nuclear-weapon Member State from a nuclear-weapon Member State;

(c) are received in a nuclear-weapon Member State from a non-nuclear-weapon Member State.

2. Such advance notification is required only:

(a) where the consignment exceeds one effective kilogram; or

(b) where an installation imports or receives a total quantity of materials from the same State that could exceed one effective kilogram in any consecutive period of twelve months, even though no single consignment exceeds one effective kilogram.

3. Such notification shall be given as far in advance as possible of the expected arrival of the nuclear material and, at the latest, on the date of receipt, using the form set out in Annex VII, and shall reach the Commission at least five working days before the material is unpacked.

4. If so required for reasons of physical protection, special arrangements concerning the form and transmission of such notification may be agreed upon with the Commission.

Article 23

Loss or delay during transfer

A special report shall be submitted, as provided for in Article 16, by the persons or undertakings notifying a transfer under Articles 21 and 22 if, following exceptional circumstances or an incident, they have received information that nuclear materials have been lost or appear to be lost, particularly when there has been a considerable delay during transfer.

Article 24

Communication of change of date

Any change of date in the packing for transfer, in the transport or in the unpacking of nuclear materials with respect to the dates given in the notifications provided for in Articles 21 and 22, but not a change that gives rise to special reports, shall be communicated without delay, with an indication of the revised dates if known.

PART V

SPECIFIC PROVISIONS

Article 25

Ore production records

Any person or undertaking extracting ores in the territory of a Member State shall keep accounting records thereof.

By way of derogation from Articles 8 to 19, these records shall indicate, in particular, the quantities of the ore extracted, with the average uranium and thorium content, and the stock of extracted ore at the mine. They shall also contain details of shipments, stating the date, consignee and quantity in each case.

Such records shall be retained for at least five years.

Article 26

Dispatch of ore

By 31 January of each year at the latest, ore producers shall inform the Commission of the amount of material dispatched from each mine during the previous year, using the form in Annex VIII.

Article 27

Exportation of ore

Any person or undertaking exporting ores to third countries shall inform the Commission thereof, on the date of dispatch at the latest, using the form in Annex VIII.

Article 28

Carriers and temporary storage agents

Any person or undertaking engaged, within the territories of the Member States, in transporting, or temporarily storing during transport, nuclear materials may accept or hand over such materials only against a duly signed and dated receipt. This receipt shall state the names of the parties handing over and receiving the materials and indicate the quantities carried as well as the nature, form and composition of the materials.

If so required for reasons of physical protection, the description of the materials transferred may be replaced by a suitable identification of the consignment. Such identification shall be traceable to records held by the persons and undertakings referred to in Article 3(1).

The records referred to above shall be retained by the contracting parties for at least five years.

Article 29

Substitute records for carriers and temporary storage agents

Records already held by persons or undertakings in accordance with existing regulations which apply to them in the territory of the Member States in which they operate may take the place of the records provided for in Article 28, provided that such records contain all the required information.

Article 30

Intermediaries

Any intermediaries taking part in the conclusion of any contract for the supply of nuclear materials, such as authorised agents, brokers or commission agents, shall keep all records relating to the transactions performed by them or on their behalf for at least five years after expiry of the contract. Such records shall contain the names of the contracting parties and indicate the date of the contract as well as the quantity, nature, form, composition, origin and destination of the materials.

Article 31

Transmission of information and data

The Commission may transmit to the International Atomic Energy Agency information and data obtained pursuant to this Regulation.

Article 32

Processing of waste

The persons or undertakings referred to in Article 3(1) shall give advance notification to the Commission of any waste-processing campaign, excluding repackaging or further conditioning without separation of elements. This advance notification, using the form in Annex XII, shall include the amount of material per batch (plutonium, high enriched uranium and uranium-233 only), the form (glass, high active liquid, etc.), the expected duration of the campaign, and the location of the material before and after the campaign. Such notification shall reach the Commission at least 200 days before the campaign starts.

Article 33

Transfers of conditioned waste

1. If any of the persons or undertakings referred to in Article 3(1) ship or export conditioned waste to an installation within or outside the territories of the Member States, they shall, upon transfer of these materials, communicate to the Commission the MBA code or the name and address of the receiver together with the accounting data, using the form in Annex XIII.

2. If any of the persons or undertakings referred to in Article 3(1) receive or import conditioned waste from an installation without a material balance area code or from an installation outside the territories of the Member States, they shall, upon receipt of these materials, communicate the name and address of the shipper together with the accounting data, using the form in Annex XIV.

3. The persons or undertakings referred to in Article 3(1) shall submit, by 31 January of each year at the latest, an annual report of changes in location of conditioned waste containing plutonium, high enriched uranium or uranium-233, using the form in Annex XV.

PART VI

SPECIFIC PROVISIONS APPLICABLE IN THE TERRITORIES OF THE NUCLEAR-WEAPON MEMBER STATES

Article 34

Specific provisions for nuclear-weapon Member States

1. This Regulation shall not apply:

(a) to installations or parts of installations which have been assigned to meet defence requirements and which are situated in the territory of a nuclear-weapon Member State; or

(b) to nuclear materials which have been assigned to meet defence requirements by that nuclear-weapon Member State.

2. For nuclear materials, installations or parts of installations which are liable to be assigned to meet defence requirements and which are situated in the territory of a nuclear-weapon Member State, the extent of the application of this Regulation and the procedures under it shall be defined by the Commission in consultation and in agreement with the Member State concerned, taking into account the provisions of the second paragraph of Article 84 of the Treaty.

3. Notwithstanding paragraphs 1 and 2:

(a) the provisions of Articles 3(1), 4, 5 and 7 shall apply to installations or parts of installations which at certain times are operated exclusively with nuclear materials liable to be assigned to meet defence requirements but which at other times are operated exclusively with civil nuclear materials;

(b) the provisions of Articles 3(1), 4, 5 and 7 shall apply, with exceptions for reasons of national security, to installations or parts of installations to which access could be restricted for such reasons but which produce, treat, separate, reprocess or use in any other way, simultaneously, both civil nuclear materials and nuclear materials assigned or liable to be assigned to meet defence requirements;

(c) the provisions of Articles 2, 6 and 8 to 35 shall apply in relation to all civil nuclear materials situated in the installations or parts of installations referred to in subparagraphs (a) and (b) above;

(d) the provisions of Articles 3(2) and 32 shall not apply in the territories of nuclear-weapon Member States.

PART VII

FINAL PROVISIONS

Article 35

Installations controlled from outside the Community

Where an installation is controlled by a person or undertaking established outside the Community, any obligations imposed by this Regulation shall be fulfilled by the local management of the installation.

Article 36

Repeal

Regulation (Euratom) No 3227/76 is repealed.

Article 37

Transitional period

The Commission may, upon a duly reasoned request by the persons or undertakings referred to in Article 3(1), grant exemption from the obligation to use the reporting formats set out in Annexes III, IV and V.

This exemption shall not extend beyond a period of three years from the date of entry into force of this Regulation.

Article 38

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Communities*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

ANNEX I

QUESTIONNAIRE FOR THE DECLARATION OF THE BASIC TECHNICAL CHARACTERISTICS OF THE INSTALLATIONS

NB:

1. Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

2. The reply 'not applicable' can be given to questions which are not applicable. The Commission is still entitled to request any additional information it considers necessary in connection with the relevant questionnaire.

3. The declaration, duly completed and signed, should be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

A. **REACTORS**

Date .....

IDENTIFICATION OF THE INSTALLATION

1. Name.

2. Location, exact address with telephone and fax numbers and e-mail address.

3. Owner (legally responsible body or individual).

4. Operator (legally responsible body or individual).

5. Present status (e.g. under construction, in operation or closed down).

6. Purpose and type.

7. Operating mode influencing its production (shift system adopted, approximate dates of operating periods in year, etc.).

8. Area layout (map showing the installation, boundaries, buildings, roads, rivers, railways, etc.).

9. Layout of installation:

   (a) structural containment, fences and access routes;

   (b) incoming-material storage area;

   (c) reactor area;

   (d) test and experiment area, laboratories;

   (e) outgoing-material storage area;

   (f) nuclear waste disposal area.

10. Additional data per reactor:

    (a) nominal thermal output;

    (b) source material and special fissile material;

    (c) initial core enrichments;

    (d) moderator;

    (e) coolant.

GENERAL ARRANGEMENTS AT THE INSTALLATION, INCLUDING THOSE RELATING TO MATERIAL USE AND ACCOUNTANCY, CONTAINMENT AND SURVEILLANCE

Description of nuclear material (*)

11. Description of the use of nuclear material (Article 3(1)).

12. Outline drawings of fuel assemblies, fuel rods/pins, fuel plates etc., in sufficient detail to indicate general structure with overall dimensions. (Provisions for pin exchange should be described, if applicable, and an indication given if this is a routine operation.)

13. Fuel material (including material in control or shim assemblies, if applicable):

    (a) chemical composition or main alloy constituents;

    (b) average enrichment per assembly;

    (c) nominal weight of nuclear material per assembly, with design tolerances.

14. Cladding material.

15. Method of identifying individual assemblies, rods/pins, plates etc., if applicable.

16. Other nuclear material used in the installation (briefly state material, purpose and method of use, e.g. as booster rods).

Flow of nuclear material

17. Flow sheet showing: points where nuclear material is identified or measured; material balance areas and inventory locations used for material accountancy; and the estimated range of nuclear material inventories at these locations under normal operating conditions.

18. Expected nominal fuel cycle data, including:

    (a) reactor core loading;

    (b) expected burn-up;

    (c) annual refuelling amount;

    (d) refuelling interval (on-load or off-load);

    (e) forecast of throughput and inventory, and of receipts and shipments.

Handling of nuclear material

19. Layout of the fresh fuel storage area, drawings of fresh fuel storage locations, and description of packaging.

20. Drawings of fresh fuel preparation and/or assay room and reactor loading area.

21. Drawings of transfer equipment for fresh and irradiated fuel, including refuelling machines or equipment.

22. Drawings of reactor vessel showing location of core and openings in vessel; description of method of fuel handling in vessel.

23. Drawing of core showing: general layout, lattice, form, pitch and dimensions of core; reflector; location, shapes and dimensions of control devices; experimental and/or irradiation positions.

24. Number and size of channels for fuel assemblies and control devices in the core.

(*) Items 12 to 15 are to be answered for each type of assembly in the installation. Terminology consistent with item 12 should be used.

25. Spent fuel storage area:

    (a) drawing of storage area;

    (b) method of storage;

    (c) design storage capacity;

    (d) drawing of equipment for handling irradiated fuel;

    (e) minimum cooling time before shipment of spent fuel;

    (f) drawing and description of shipping cask for spent fuel (e.g. to determine whether sealing is possible).

26. Nuclear material testing area (if applicable):

    (a) brief description of the activities performed;

    (b) description of main equipment (e.g. hot cell, fuel assembly decladding and dissolving equipment);

    (c) description of shipping containers for nuclear material and of waste and scrap packaging (e.g. to determine whether sealing is possible);

    (d) description of storage area for non-irradiated and irradiated nuclear material;

    (e) drawings of the above, if not covered elsewhere.

Coolant data

27. Coolant flow diagrams as required for heat balance calculations (indicating pressure, temperatures and mass flow rates at main points).

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

Accountancy system

28. Description of nuclear material accountancy and control system (describe item and/or mass accountancy system, including assay methods used and assessed accuracies, supplying specimen blank forms used in all accountancy and control procedures). Period during which such records must be retained should be stated.

Physical inventory

29. Description of: procedures, scheduled frequency and methods for operator's physical inventory taking (both for item and/or mass accountancy, including main assay methods and expected accuracy); access to nuclear material in the core and to irradiated nuclear material outside the core; expected radiation levels.

OTHER INFORMATION RELEVANT TO APPLICATION OF SAFEGUARDS

30. Organisational arrangements for material accountancy and control.

31. Information on the health and safety rules which have to be observed at the installation, and with which the inspectors must comply.

B. CRITICAL AND ZERO ENERGY INSTALLATIONS

Date .....

IDENTIFICATION OF THE INSTALLATION

1. Name.
2. Location, exact address with telephone and fax numbers and e-mail addresses.
3. Owner (legally responsible body or individual).
4. Operator (legally responsible body or individual).
5. Present status (e.g. under construction, in operation or closed down).
6. Purpose and type.
7. Operating mode (shift system adopted, approximate dates of operating periods in year, etc.).
8. Area layout (map showing the installation, boundaries, buildings, roads, rivers, railways, etc.).
9. Layout of installation:
   (a) structural containment, fences and access routes;
   (b) nuclear material storage area(s);
   (c) fuel element assembling area, laboratories, etc.;
   (d) critical assembly proper (*).
10. Additional data (*):
    (a) maximum expected operating power and/or neutron flux;
    (b) main type(s) of nuclear material and their enrichment;
    (c) moderator;
    (d) reflector, blanket;
    (e) coolant.

GENERAL ARRANGEMENTS AT THE INSTALLATION, INCLUDING THOSE RELATING TO MATERIAL USE AND ACCOUNTANCY, CONTAINMENT AND SURVEILLANCE

Description of nuclear material

11. Description of the use of nuclear material (Article 3).
12. Outline drawings of fuel assemblies, fuel rods/pins, fuel plates etc., in sufficient detail to indicate general structure with overall dimensions.
13. Fuel material (including material in control or shim assemblies, if applicable):
    (a) chemical composition or main alloy constituents;
    (b) form and dimensions;
    (c) enrichment of fuel rods/pins, fuel plates etc.;
    (d) nominal weight of nuclear material, with design tolerances.

(*) To be provided for each critical assembly if more than one in the installation.

14. Cladding material.

15. Method of identifying individual assemblies, rods/pins, plates etc., if applicable.

16. Other nuclear material used in the installation (briefly state material, purpose and method of use, e.g. as booster rods).

Location and handling of nuclear material

17. Description, including layout drawings, of:

    (a) nuclear material storage and assembly areas and critical assembly/ies proper (inventory locations);

    (b) the estimated range of inventories of nuclear material in these locations;

    (c) the physical arrangement of equipment used for assembling, testing and measuring nuclear material; and

    (d) the routes followed by nuclear material.

18. Sketch of critical assembly core showing core support structure, shielding and heat removal systems, with description (to be provided for each critical assembly if more than one in the installation).

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

Accountancy system

19. Description of nuclear material accountancy and control system (describe item and/or mass accountancy system, including assay methods used and assessed accuracies, supplying specimen blank forms used in all accountancy and control procedures). Period during which such records must be retained should be stated.

Physical inventory

20. Description of: procedures, scheduled frequency and methods for operator's physical inventory taking (both for item and/or mass accountancy, including main assay methods and expected accuracy); access to nuclear material in the core and to irradiated nuclear material outside the core; expected radiation levels.

OTHER INFORMATION RELEVANT TO APPLICATION OF SAFEGUARDS

21. Organisational arrangements for material accountancy and control.

22. Information on the health and safety rules which have to be observed at the installation and with which the inspectors must comply.

C. CONVERSION, FABRICATION AND REPROCESSING INSTALLATIONS

Date .....

IDENTIFICATION OF THE INSTALLATION

1. Name.

2. Location, exact address with telephone and fax numbers and e-mail addresses.

3. Owner (legally responsible body or individual).

4. Operator (legally responsible body or individual).

5. Present status (e.g. under construction, in operation or closed down).

6. Purpose and type.

7. Operating mode influencing its production (shift system adopted, approximate dates of operating periods in year, etc.).

8. Area layout (map showing the installation, boundaries, buildings, roads, rivers, railways, etc.).

9. Layout of installation:

   (a) structural containment, fences and access routes;

   (b) routes followed by nuclear material;

   (c) incoming nuclear material storage area;

   (d) each main processing area and process laboratory;

   (e) test or experimental areas;

   (f) outgoing nuclear material storage;

   (g) nuclear waste disposal area;

   (h) analytical laboratory.

GENERAL ARRANGEMENTS AT THE INSTALLATION, INCLUDING THOSE RELATING TO MATERIAL USE AND ACCOUNTANCY, CONTAINMENT AND SURVEILLANCE

Flow, location and handling of nuclear material

10. Flow sheet showing: points where nuclear material is identified or measured; material balance areas and inventory locations used for material accountancy; and the estimated range of nuclear material inventories at these locations under normal operating conditions. The description should include (if applicable):

    (a) batch size or flow rate;

    (b) method of storage or packing;

    (c) storage capacity;

    (d) general forecasts of throughput and inventory and of receipts and shipments.

11. In addition to point 10 above, a description and a layout drawing should be provided of feed storage areas for reprocessing installations, indicating:

    (a) locations for fuel elements and handling equipment;

    (b) type of fuel elements including nuclear material content and enrichment.

12. In addition to point 10 above, the description of the recycling stage of the process should include, if available:

    (a) duration of temporary storage;

    (b) schedules for external recycling (if applicable).

13. In addition to point 10 above, the description of the discard stage of the process should include the discard method (disposal or storage).

14. Under steady-state conditions, for each flow sheet referred to in points 10 and 17 and assuming the modes of operation in point 7, state:

    (a) the nominal throughput per year;

    (b) the in-process inventory based on design capacity.

15. Description of the normal procedures adopted for complete or partial clean-out of the plant. Include description of special sampling and measurement points associated with the clean-out procedure and subsequent physical inventory taking, if not described in point 10 above.

Description of nuclear material

16. Description of the use of nuclear material (Article 3(1)).

17. Description, by means of flow sheets or otherwise, of estimated flow and inventory of all nuclear material for storage and process areas. The description should include:

    (a) physical and chemical form;

    (b) content range or expected upper limits for each category of solid or liquid discard material;

    (c) enrichment range.

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

Accountancy system

18. Description of the accountancy system used to record and report accountancy data and establish material balances, supplying specimen blank forms used in all procedures. Period during which such records must be retained should be stated.

19. Indicate when and how often material balances are established, including those established during campaigns. Description of method and procedure for adjusting accounts after a physical inventory taking.

20. Description of procedure for handling shipper/receiver differences and method of adjusting accounts.

21. Description of procedure for correcting accounts following procedural or clerical errors and its effect on shipper/receiver differences.

Physical inventory

22. Refer to point 15. Identify items of equipment on the flow sheets referred to in points 10 and 17 that are to be regarded as containers for nuclear material under physical inventory conditions. State the schedule of physical inventory taking during the campaign.

Methods for measurement, sampling and analysis

23. Description of method for establishing each measurement at the point indicated; equations or tables used and calculations made to determine actual quantities of weights or volumes should be identified. Indicate whether data are recorded automatically or manually. Method and practical procedures for sampling at each point indicated should be described.

24. Description of analytical methods used for accountancy purposes. Refer to a manual or report, if possible.

Control of measurement accuracy

25. Description of: measurement quality control programme needed for material accountancy purposes, including programmes (together with accuracy values) for the continuing appraisal of analytical, weight, volume and sampling precisions and biases, and for the calibration of associated equipment; method of calibrating the measuring equipment referred to in point 24; type and quality of standards used for analytical methods referred to in point 24; type of analytical equipment used, indicating method and frequency of calibration.

Statistical evaluation

26. Description of methods for statistical evaluation of data collected in measurement control programmes for evaluating the precision and the accuracy of measurements and for estimating measurement uncertainties (i.e. determination of the standard deviations of random and systematic error in the measurements). Also description of statistical procedures used to combine individual error estimates to obtain the standard deviations of overall error for shipper/receiver differences, the book inventory, the physical inventory and material unaccounted for.

OTHER INFORMATION RELEVANT TO APPLICATION OF SAFEGUARDS

27. Organisational arrangements for material accountancy and control.

28. Information on the health and safety rules which have to be observed at the installation and with which the inspectors must comply.

D. **STORAGE INSTALLATIONS** (*)

Date .....

IDENTIFICATION OF THE INSTALLATION

1. Name.
2. Location, exact address with telephone and fax numbers and e-mail addresses.
3. Owner (legally responsible body or individual).
4. Operator (legally responsible body or individual).
5. Present status (e.g. under construction, in operation or closed down).
6. Purpose and type.
7. Area layout (map showing the installation, boundaries, buildings, roads, rivers, railways, etc.).
8. Layout of installation, showing structural containment, fences and access routes.

GENERAL ARRANGEMENTS AT THE INSTALLATION, INCLUDING THOSE RELATING TO MATERIAL USE AND ACCOUNTANCY, CONTAINMENT AND SURVEILLANCE

Description of nuclear material

9. Description of the use of nuclear material (Article 3(1)).
10. Description, by means of drawings or otherwise, of all nuclear material in the installation, showing:
    (a) all types of items, including normal handling equipment;
    (b) chemical composition or main alloy constituents;
    (c) form and dimensions;
    (d) enrichment;
    (e) nominal weight of nuclear material, with design tolerances;
    (f) cladding materials;
    (g) methods of identifying items.

Location and handling of nuclear material

11. Description, by means of layout drawings or otherwise, of:
    (a) nuclear material storage areas (inventory locations);
    (b) the estimated range of inventories of nuclear material in these locations;
    (c) nuclear material storage and/or shipping containers;
    (d) the routes and equipment used for movement of nuclear material, if applicable.

(*) Separate installations not normally associated with reactors, with enrichment, conversion and fabrication installations, or with chemical reprocessing and recovery installations.

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

Accountancy system

12. Description of nuclear material accountancy and control system (describe item and/or mass accountancy system, including assay methods used and assessed accuracies, supplying specimen blank forms used in all accountancy and control procedures). Period during which such records must be retained should be stated.

Physical inventory

13. Description of procedures, scheduled frequency and methods for operator's physical inventory taking (both for item and/or mass accountancy, including main assay methods), and expected accuracy.

OTHER INFORMATION RELEVANT TO APPLICATION OF SAFEGUARDS

14. Organisational arrangements for material accountancy and control.

15. Information on the health and safety rules which have to be observed at the installation and with which the inspectors must comply.

E. **ISOTOPE SEPARATION INSTALLATIONS**

Date .....

IDENTIFICATION OF THE INSTALLATION

1. Name.
2. Location, exact address with telephone and fax numbers and e-mail address.
3. Owner (legally responsible body or individual).
4. Operator (legally responsible body or individual).
5. Present status (e.g. under construction, in operation or closed down).
6. Building schedule (if installation not in operation):
   (a) date building starts;
   (b) date of installation acceptance;
   (c) commissioning date.
7. Purpose and type (nominal separation capacity, enrichment facilities, etc.).
8. Operating mode influencing its production (shift system adopted, approximate periods of operating times in year, etc.).
9. Area layout (map showing the installation, boundaries, buildings, roads, rivers, railways, etc.).
10. Layout of installation:
    (a) structural containment, fences and access routes;
    (b) containment of certain parts of the installation;
    (c) routes followed by nuclear material;
    (d) incoming nuclear material storage area;
    (e) each main processing area and process laboratory, including weighing and sampling area, decontamination, purification and feed areas, etc.;
    (f) test or experimental areas;
    (g) outgoing nuclear material storage area;
    (h) nuclear waste disposal area;
    (i) analytical laboratory.

GENERAL ARRANGEMENTS AT THE INSTALLATION, INCLUDING THOSE RELATING TO MATERIAL USE AND ACCOUNTANCY, CONTAINMENT AND SURVEILLANCE

Description of nuclear material

11. Description of the use of nuclear material (Article 3(1)).
12. Description, by means of flow sheets or otherwise, of estimated flow and inventory of all nuclear material for storage and process areas. The description should include:
    (a) physical and chemical form;
    (b) enrichment range for feed, product and tails;
    (c) content range or expected upper limits for each category of solid or liquid discard material.

Flow, location and handling of nuclear material

13. Description, by means of diagrams or otherwise, of storage and process areas. The description should include:

    (a) sampling and measuring points;

    (b) batch size and/or flow rate;

    (c) method of storage or packing;

    (d) storage capacities.

14. In addition to point 12 above, the description of the installation should include:

    (a) separation capacity;

    (b) enrichment techniques or methods;

    (c) possible points for feed, product and tails;

    (d) recycling facilities;

    (e) type and size of UF6 cylinders used, filling and emptying methods.

15. Power consumption should be given, where necessary.

16. Each diagram should indicate, under steady-state conditions:

    (a) nominal throughput per year;

    (b) physical inventory of in-process materials;

    (c) material loss rate owing to leakage, decomposition, deposition, etc.;

    (d) arrangements for regular plant maintenance (periodic shutdown or continuous component replacement, etc.).

17. Description of special sampling and measurement points associated with decontamination of off-process equipment that is to be maintained or replaced.

18. Description of process waste disposal point, including disposal method, storage period, type of disposal, etc.

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

Accountancy system

19. Description of the accountancy system used to record and report accountancy data and to establish material balances, supplying specimen blank forms used in all procedures. Period during which such records must be retained should be stated.

20. Indicate when and how often material balances are established, including any established during campaigns. Description of method and procedure for adjusting accounts after a physical inventory taking.

21. Description of procedure for handling shipper/receiver differences and method of adjusting accounts.

22. Description of procedure for correcting accounts owing to procedural or clerical errors and the effect on shipper/receiver differences, if applicable.

Physical inventory

23. Identification of items of equipment mentioned in the description referred to in points 12 and 18 that are to be regarded as containers for nuclear material under physical inventory conditions. State the timing of physical inventory taking.

Methods for measurement, sampling and analysis

24. Refer to the information given under points 12 and 17 for location of sampling and measurement points.

25. Description of method for establishing each measurement at the point indicated; equations or tables used and calculations made to determine actual quantities of weights or volumes should be identified. Indicate whether data are recorded automatically or manually. Method and practical procedures for sampling at each point indicated should be described. Indicate number of samples taken and rejection criteria.

26. Description of analytical methods used for accountancy purposes. Refer to a manual or report, if possible.

Control of measurement accuracy

27. Description of programmes for the continuous appraisal of weight, volume and sampling precision and biases, and for the calibration of associated equipment.

28. Descriptions of type and quality of standards used for analytical methods referred to in point 26, type of analytical equipment used, method and frequency of calibration.

Statistical evaluation

29. Description of methods for statistical evaluation of data collected in measurement control programmes for evaluating the precision and the accuracy of measurements and for estimating measurement uncertainties (i.e. determination of the standard deviations of random and systematic error in the measurements). Also description of statistical procedures used to combine individual error estimates to obtain the standard deviations of overall error for shipper/receiver differences, the book inventory, the physical inventory and material unaccounted for.

OTHER INFORMATION RELEVANT TO APPLICATION OF SAFEGUARDS

30. Organisational arrangements for material accountancy and control.

31. Information on the health and safety rules which have to be observed at the installation, and with which the inspectors must comply.

F. INSTALLATIONS USING NUCLEAR MATERIAL IN QUANTITIES EXCEEDING ONE EFFECTIVE KILOGRAM

Date .....

For any installation of a type not referred to in sections A to E which uses more than one effective kilogram per annum, information should be given on the following:

— identification of the installation;

— general arrangements at the installation, including those relating to material use and accountancy, containment and surveillance;

— description of the use of nuclear material (Article 3(1));

— nuclear material accountancy and control system, including techniques for physical inventory taking;

— other information relevant to the application of safeguards.

The information required under these headings is, where applicable, the same as that required for the types of installations coming under sections C, D and E of this Annex.

G. INSTALLATIONS HOLDING SMALL QUANTITIES OF NUCLEAR MATERIAL

Date .....

For these holders, the total inventory is calculated as the sum of the stock of each category of nuclear material held, each expressed as a percentage of the following limits:

depleted uranium	350 kg or
thorium	200 kg or
natural uranium	100 kg or
low enriched uranium	1 kg or
high enriched uranium	5 g or
plutonium	5 g

For example:

(a) a holder with 4 g of plutonium has a percentage inventory equal to 80 % (4/5);

(b) a holder with 1 g of high enriched uranium plus 20 kg of natural uranium has a percentage inventory equal to 40 % (1/5 + 20/100).

IDENTIFICATION OF THE INSTALLATION AND OF THE NUCLEAR MATERIAL

1. Name.
2. Location, exact address with telephone and fax numbers and e-mail addresses.
3. Type of nuclear material.
4. Description of containers used for storage and handling.
5. Description of the use of the nuclear material (Article 3(1)).

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

The holders' obligations have been simplified as following:

A. **Limits on holdings/movements**

If any individual receipt of nuclear material exceeds the quantities indicated above or if the 'percentage inventory' of the installation exceeds 100 % at any time, the Euratom Safeguards Office must be notified immediately.

B. **Accounting/operating records to be maintained**

Accounting/operating records must be kept in a manner permitting ready verification of reports made to the Euratom Safeguards Office and of any correction thereto.

C. **Inventory change reports (ICR)**

Need be submitted only if an inventory change occurs.

A note explaining unusual inventory changes and corrections or any other piece of information included in the report should be attached. In particular, the identification and address should be given of any entity to which material is shipped (including export) or from whom material is received (including import).

Even if no inventory change occurred during the year, an ending book inventory by category as at 31 December must be declared. This declaration must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg by 31 January of each year.

D. **Report form**

No special form is required for the report under C above. The report can be made by letter.

H. **WASTE HANDLING, STORING OR PROCESSING INSTALLATIONS** (*)

Date .....

IDENTIFICATION OF THE INSTALLATION

1. Name.
2. Location, exact address with telephone and fax numbers and e-mail addresses.
3. Owner (legally responsible body or individual).
4. Operator (legally responsible body or individual).
5. Present status (e.g. under construction, in operation or closed down).
6. Purpose and type.
7. Area layout (map showing the installation, boundaries, buildings, roads, rivers, railways, etc.).
8. Layout of installation:
   (a) structural containment, fences and access routes;
   (b) routes followed by nuclear material;
   (c) nuclear waste disposal areas;
   (d) each main processing area and process laboratory;
   (e) test or experimental areas;
   (f) analytical laboratory.

GENERAL ARRANGEMENTS AT THE INSTALLATION, INCLUDING THOSE RELATING TO MATERIAL USE AND ACCOUNTANCY, CONTAINMENT AND SURVEILLANCE

Locations and handling of nuclear material

9. Description of the use of nuclear material (Article 3(1)).
10. Description, by means of drawings or otherwise, of:
    (a) nuclear material storage areas (inventory locations);
    (b) the estimated range of inventories of nuclear material in these locations;
    (c) nuclear material storage and/or shipping containers;
    (d) the routes and equipment used for movement of nuclear material, if applicable.

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

Accountancy system

11. Description of the nuclear material accountancy and control system, supplying specimen blank forms used in all accountancy and control procedures. Period during which such records must be retained should be stated.

Physical inventory

12. Description of procedures, scheduled frequency and methods for operator's physical inventory taking (both for item and/or mass accountancy including main assay methods), and expected accuracy.

OTHER INFORMATION RELEVANT TO APPLICATION OF SAFEGUARDS

13. Organisational arrangements for material accountancy and control.
14. Information on the health and safety rules which have to be observed at the installation and with which the inspectors must comply.

(*) Separate installations engaged solely in the handling, storing or processing of waste materials (not forming a part of enrichment, conversion, fabrication, chemical reprocessing and recovery installations or of reactors).

J. **OTHER INSTALLATIONS** (*)

Date .....

IDENTIFICATION OF THE INSTALLATION AND OF THE NUCLEAR MATERIAL

1. Name.
2. Location, exact address with telephone and fax numbers and e-mail addresses.
3. Owner (legally responsible body or individual).
4. Operator (legally responsible body or individual).
5. Type of nuclear material.
6. Description of containers used for storage and handling (e.g. to determine whether sealing is possible).
7. Description of the use of the nuclear material (Article 3(1)).
8. In the case of ore producers, the potential annual throughput of the installation.
9. The current status (e.g. under construction, in operation or closed down).

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

10. Description of the procedures for nuclear material accountancy and control, including procedures for physical inventory taking.
11. Organisational arrangements for material accountancy and control.

(*) The term 'other' denotes all the installations not covered by sections A to H, and where nuclear material in quantities not exceeding one effective kilogram is habitually used. It also specifically includes ore producers (point 8 above).

ANNEX II

GENERAL DESCRIPTION OF THE SITE (1)

Site identification .....

Declaration No (2) ..... Declaration date .....

Reporting period ..... Comments (3) .....

Entry (4)	Ref. (5)	Installations on site (6)	Building (7)	General description, including use of contents (8)	Comments (9)

.....

(Name and signature of the site representative)

Explanatory notes

1. The initial declaration should include all nuclear installations, and all other buildings on their sites. A separate entry should be made for each building on the site. Subsequent annual update declarations should include only those sites and buildings which have undergone a change since the previous declaration.

2. The 'Declaration No' is a sequential number for each site, starting with '1' for the initial declaration.

3. Comments applicable to the whole of the site.

4. Each 'Entry' in each declaration should be numbered sequentially, beginning with '1'.

5. The 'Ref.' column should be used to refer to another entry. The contents of the 'Ref.' column consist of the relevant declaration and entry numbers (e.g. 10-20 refers to entry 20 of declaration 10). The reference indicates that the current entry adds to or updates information reported earlier. Several references may be inserted, if necessary.

6. The 'Installations on site' column should indicate the installation code(s) of all installations located on the site including closed-down installations or locations where activities related to conversion, enrichment, fuel fabrication or reprocessing were carried out. Every such nuclear installation on a site should be included in the initial declaration.

7. The 'Building' column should include a building number or other designation that provides an unambiguous identification of the building on the schematic map of the site.

8. The 'General description' for each building should include:

   (a) the approximate size of the building in terms of the number of floors and the total square metres of floor space;

   (b) the use of the building, including any prior uses of the building that might be relevant to interpreting other information, such as the results of environmental sampling, available to Euratom; and

   (c) the main contents of the building, where this is not readily apparent from the stated use.

   However, descriptions of activities previously provided in the Basic Technical Characteristics questionnaire need not be repeated.

9. Comments applicable to each entry.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX III

INVENTORY CHANGE REPORT (ICR)

Label/Tag	Content	Comments	#
MBA	Character (4)	MBA code of reporting MBA	1
Report type	Character (1)	I for Inventory Change Report	2
Report date	DDMMYYYY	Date on which the report was completed	3
Report number	Number (8)	Sequential number, no gaps	4
Line count	Number (8)	Total number of lines reported	5
Start report	DDMMYYYY	Date of first day in reporting period	6
End report	DDMMYYYY	Date of last day in reporting period	7
Reporting person	Character (20)	Name of person responsible for the report	8
Transaction ID	Number (8)	Sequential number	9
IC code	Character (2)	Type of inventory change	10
Batch	Character (20)	Unique identifier for a batch of nuclear material	11
KMP	Character (1)	Key measurement point	12
Measurement	Character (1)	Measurement code	13
Material form	Character (2)	Material form code	14
Material container	Character (1)	Material container code	15
Material state	Character (1)	Material state code	16
MBA from	Character (4)	MBA code of shipping MBA (for IC codes RD and RF only)	17
MBA to	Character (4)	MBA code of receiving MBA (for IC codes SD and SF only)	18
Previous batch	Character (20)	Name of previous batch (for IC code RB only)	19
Original date	DDMMYYYY	Accounting date of the line to be corrected (always of first line in correction chain)	20
PIT date	DDMMYYYY	Date of Physical Inventory Taking (PIT) to which MF adjustment refers (use with IC code MF only)	21
Line number	Number (8)	Sequential number, no gaps	22
Accounting date	DDMMYYYY	Date on which the inventory change occurred or became known	23

Label/Tag	Content	Comments	#
Items	Number (4)	Number of items	24
Element category	Character (1)	Element category	25
Element weight	Number (24.3)	Element weight	26
Isotope	Character (1)	G for U-235, K for U-233, J for a mixture of U-235 and U-233	27
Fissile weight	Number (24.3)	Weight of fissile isotope	28
Obligation	Character (2)	Safeguards obligation	29
Previous category	Character (1)	Previous category (use for IC codes CB, CC and CE only)	30
Previous obligation	Character (2)	Previous obligation (use for IC codes BR, CR, PR and SR only)	31
CAM code	Character (8)	Code to identify small holder	32
Document	Character (20)	Operator-defined reference to supporting documents	33
Container ID	Character (20)	Operator-defined identifier for the container	34
Correction	Character (1)	D for deletions, A for additions forming part of a deletion/addition pair, L for late lines (stand-alone additions)	35
Previous report	Number (8)	Report number of line to be corrected	36
Previous line	Number (8)	Line number of line to be corrected	37
Comment	Character (256)	Operator comment	38
Burn-up	Number (6)	Burn-up in MWdays/tonne (use for IC codes NL and NP in power reactors only)	39
CRC	Number (12)	Hash code of line for quality control purposes	40
Previous CRC	Number (12)	Hash code of line to be corrected	41
Advance notification	Character (8)	Reference to advance notification sent to Euratom (use for IC codes RD, RF, SD and SF only)	42
Campaign	Character (12)	Campaign identifier for reprocessing installations	43
Reactor	Character (12)	Reactor code for reprocessing campaigns	44
Error path	Character (8)	Special code for evaluation purposes	45

Explanatory notes

1. **MBA:**

   Code of the reporting material balance area. This code is notified to the installation concerned by the Commission.

2. **Report type:**

   I for inventory change reports.

3. **Report date:**

   Date on which the report was completed.

4. **Report number:**

   Sequential number, no gaps.

5. **Line count:**

   Total number of lines reported.

6. **Start report:**

   Date of first day of reporting period.

7. **End report:**

   Date of last day of reporting period.

8. **Reporting person:**

   Name of person responsible for the report.

9. **Transaction ID:**

   Sequential number. This is used to identify all inventory change lines relating to the same physical transaction.

10. **IC code:**

    One of the following codes must be used:

Keyword	Code	Explanation
Receipt	RD	Receipt of nuclear material from a material balance area within the European Union
Import	RF	Import of nuclear material from outside the European Union
Receipt from non-safeguarded activity	RN	Receipt of nuclear material from a non-safeguarded activity (Article 34)
Shipment	SD	Transfer of nuclear material to a material balance area within the European Union
Export	SF	Export of nuclear material outside the European Union
Shipment to non-safeguarded activity	SN	Transfer of nuclear material to a non-safeguarded activity (Article 34)

Keyword	Code	Explanation
Transfer to conditioned waste	TC	Nuclear material, contained in waste and measured or estimated on the basis of measurements, which has been conditioned in such a way (e.g. in glass, cement, concrete or bitumen) that it is not suitable for further nuclear use. The quantity of nuclear material involved is to be subtracted from the inventory of the material balance area. Separate records must be kept for this type of material
Discards to the environment	TE	Nuclear material, contained in waste and measured or estimated on the basis of measurements, which has been irrevocably discarded to the environment as the result of a licensed discharge. The quantity of nuclear material involved is to be subtracted from the inventory of the material balance area
Transfer to retained waste	TW	Nuclear material, contained in waste and measured or estimated on the basis of measurements, which has been transferred to a specific location within the material balance area from which it could be retrieved. Waste belonging to this category has not yet been conditioned and is regarded as economically irrecoverable by current technology. The quantity of nuclear material involved is to be subtracted from the inventory of the material balance area. Separate records must be kept for this type of material
Retransfer from conditioned waste	FC	Retransfer of conditioned waste to the inventory of the material balance area. This applies whenever conditioned waste undergoes processing
Retransfer from retained waste	FW	Retransfer of retained waste to the inventory of the material balance area. This applies whenever retained waste is retrieved from the specific location within the material balance area, either for processing in the material balance area or for shipment from the material balance area
Accidental loss	LA	Irretrievable and inadvertent loss of a quantity of nuclear material as the result of an operational accident. Use of this code requires a special report to be sent to the Commission
Accidental gain	GA	Nuclear material unexpectedly found, except when detected in the course of a physical inventory taking. Use of this code requires a special report to be sent to the Commission
Category change	CE	Accountancy transfer of a quantity of nuclear material from one category (Article 19) to another as a result of an enrichment process (only one line to be reported per category change)
Category change	CB	Accountancy transfer of a quantity of nuclear material from one category (Article 19) to another as a result of a blending operation (only one line to be reported per category change)
Category change	CC	Accountancy transfer of a quantity of nuclear material from one category (Article 19) to another for all types of category change not covered by codes CE and CB (only one line to be reported per category change)

Keyword	Code	Explanation
Rebatching	RB	Accountancy transfer of a quantity of nuclear material from one batch to another (only one line to be reported per rebatching)
Change in particular obligation	BR	Accountancy transfer of a quantity of nuclear material from one particular safeguard obligation to another (Article 18), to balance the total uranium stock following a blending operation (only one line to be reported per change of obligation)
Change in particular obligation	PR	Accountancy transfer of a quantity of nuclear material from one particular safeguards obligation to another (Article 18), used when nuclear material enters or leaves an accountancy pool (only one line to be reported per change of obligation)
Change in particular obligation	SR	Accountancy transfer of a quantity of nuclear material from one particular safeguards obligation to another (Article 18), following an obligation exchange or a substitution (only one line to be reported per change of obligation)
Change in particular obligation	CR	Accountancy transfer of a quantity of nuclear material from one particular safeguards obligation to another (Article 18), for all cases not covered by codes BR, PR or SR (only one line to be reported per change of obligation)
Nuclear production	NP	Increase in the quantity of nuclear material due to nuclear transformation
Nuclear loss	NL	Decrease in the quantity of nuclear material due to nuclear transformation
Shipper/receiver difference	DI	Shipper/receiver difference (Article 2) The difference between the quantity of nuclear material in a batch as measured at the receiving material balance area and as stated by the shipping material balance area
New measurement	NM	Quantity of nuclear material, in one particular batch, accounted for in the nuclear material balance area, being the difference between a newly measured quantity and the quantity formerly accounted for, and which is neither a shipper/receiver difference nor a correction
New balance	NB	Quantity of nuclear material accounted for in the material balance area, being the difference between the result of a physical inventory taken by the plant operator for his own purposes (without reporting a physical inventory listing to the Commission) and the book inventory established on the same date
Material unaccounted for	MF	Book adjustment for material unaccounted for. Must be equal to the difference between the ending physical inventory (PE) and the ending book inventory (BA) reported in the material balance report (Annex IV). The original date must be that of the physical inventory taking, while the accounting date must be after the date of the physical inventory taking

Keyword	Code	Explanation
Roundings	RA	Rounding adjustment to make the sum of the quantities reported in a given period coincide with the ending book inventory of the material balance area
Isotope adjustment	R5	Adjustment to make the sum of the isotope quantities reported coincide with the ending book inventory for U-235 of the material balance area
Material production	MP	Quantity of nuclear material, obtained from substances originally not subject to safeguards, which has become subject to safeguards because its concentration now exceeds the minimum levels
Termination of use	TU	Quantity of nuclear material incorporated in products used for non-nuclear purposes from which it is regarded as economically irrecoverable by current technology
Derogation	DE	Derogation of a quantity of nuclear material from declaration (Article 20) To be used only by MBAs at the moment the initial derogation from the rules of reporting is granted, or when nuclear material which qualifies for derogation is received or imported
Derogation withdrawal	DW	Withdrawal of derogation from declaration of a quantity of nuclear material (Article 20) To be used only by MBAs for which derogation from the rules of reporting is withdrawn, or when the nuclear material is shipped or exported
Ending book inventory	BA	Book inventory at the end of a reporting period and at the PIT date, separate for each category of nuclear material and for each particular safeguards obligation

11. **Batch:**

The batch designation may be chosen by the operator, but:

(a) in the case of the inventory change 'Receipt (RD)', the batch designation used by the shipper must be reported;

(b) a batch designation must not be used again for another batch in the same material balance area.

12. **KMP:**

Key measurement point. The codes are notified to the installation concerned in the particular safeguard provisions. If no codes have been specified, '&' should be used.

13. **Measurement:**

The basis on which the quantity of nuclear material reported was established has to be indicated. One of the following codes must be used:

Measured	Estimated	Explanation
M	E	In the reporting material balance area
N	F	In another material balance area
T	G	In the reporting material balance area when the weights have already been given in a previous inventory change report or physical inventory listing
L	H	In another material balance area when the weights have already been given in a previous inventory change report or physical inventory listing for the present material balance area

14. **Material form:**

The following codes must be used:

Main category	Subcategory	Code
Ores		OR
Concentrates		YC
Uranium hexafluoride (UF_6)		U6
Uranium tetrafluoride (UF_4)		U4
Uranium dioxide (UO_2)		U2
Uranium trioxide (UO_3)		U3
Uranium oxide (U_3O_8)		U8
Thorium oxide (ThO_2)		T2
Solutions	Nitrate	LN
	Fluoride	LF
	Other	LO
Powder	Homogeneous	PH
	Heterogeneous	PN
Ceramics	Pellets	CP
	Spheres	CS
	Other	CO
Metal	Pure	MP
	Alloys	MA

Main category	Subcategory	Code
Fuel	Rods, pins	ER
	Plates	EP
	Bundles	EB
	Assemblies	EA
	Other	EO
Sealed sources	—	QS
Small quantities/samples	—	SS
Scrap	Homogeneous	SH
	Heterogeneous (clean-outs, clinkers, sludges, fines, other)	SN
Solid waste	Hulls	AH
	Mixed (plastics, gloves, papers, etc.)	AM
	Contaminated equipment	AC
	Other	AO
Liquid waste	Low active	WL
	Medium active	WM
	High active	WH
Conditioned waste	Vitrified	NV
	Glass	NG
	Bitumen	NB
	Concrete	NC
	Other	NO

15. **Material container:**

The following codes must be used:

Type of container	Code
Cylinder	C
Pack	P
Drum	D
Discrete fuel unit	S
Bird cage	B
Bottle	F
Tank or other container	T
Other	O

16. **Material state:**

The following codes must be used:

State	Code
Fresh nuclear material	F
Irradiated nuclear material	I
Waste	W
Irrecoverable material	N

17. **MBA from:**

Use only for inventory change codes RD and RF. For inventory change code RD, the code of the shipping material balance area is reported. If this code is unknown, the code 'F', 'Q' or 'W' (for the shipping MBA in France, the UK or a non-nuclear-weapon State) is reported and the shipper's full name and address must be entered in the comment field (38). For inventory change code RF, the country code of the exporting State is reported and the shipper's full name and address must be entered in the comment field (38).

18. **MBA to:**

Use only for inventory change codes SD and SF. For inventory change code SD, the code of the receiving material balance area is reported. If this code is unknown, the code 'F', 'Q' or 'W' (for the receiving MBA in France, the UK or a non-nuclear-weapon State) is reported and the receiver's full name and address must be entered in the comment field (38). For inventory change code SF, the country code of the importing State is reported and the receiver's full name and address must be entered in the comment field (38).

19. **Previous batch:**

Batch designation before rebatching. The batch designation after the rebatching must be reported in field 11.

20. **Original date:**

In the case of a correction, the day, month and year when the line to be corrected was originally entered must be reported. For correction chains, the original date is always the accounting date of the first line in the chain. For late lines (stand-alone additions), the original date is the date on which the inventory change occurred.

21. **PIT date:**

Date of the physical inventory taking as reported in the material balance report on which the book adjustment for MUF (material unaccounted for) is based. Use only with inventory change code MF.

22. **Line number:**

Sequential number starting with 1 in each report, no gaps.

23. **Accounting date:**

Day, month and year when the inventory change occurred or became known.

24. **Items:**

The number of items making up the batch must be reported. If an inventory change consists of several lines, the sum of the number of items reported must equal the total number of items belonging to the same transaction ID. If the transaction involves more than one element the number of items should be declared in the line(s) for the element of highest strategic value only (in descending order: P, H, L, N, D, T).

25. **Element category:**

The following code for categories of nuclear material must be used:

Category	Code
Plutonium	P
High enriched uranium (20 % enrichment and above)	H
Low enriched uranium (higher than natural but less than 20 % enrichment)	L
Natural uranium	N
Depleted uranium	D
Thorium	T

26. **Element weight:**

The weight of the element referred to in field 25 must be reported. All weights must be reported in grams. The decimal digits appearing in the accounting lines can be reported up to a maximum of three decimal places.

27. **Isotope:**

This code indicates the fissile isotopes involved and should be used when the weight of fissile isotopes is reported (28). Use the code G for U-235, K for U-233, and J for a mixture of U-235 and U-233.

28. **Fissile weight:**

Unless otherwise stated in the particular safeguard provisions, the weight of fissile isotopes must only be reported for enriched uranium and category changes involving enriched uranium. All weights must be reported in grams. The decimal digits appearing in the accounting lines can be reported up to a maximum of three decimal places.

29. **Obligation:**

Indication of the particular safeguards obligation assumed by the Community under an Agreement concluded with a third country or an international organisation, to which the material is subject (Article 18). The Commission will communicate the appropriate codes to the installations.

30. **Previous category:**

Code of the category of nuclear material before the category change. The corresponding code after the change must be reported in field 25. Use only with the inventory change codes CE, CB and CC.

31. **Previous obligation:**

Code of the particular safeguards obligation to which the nuclear material was subject before the change. The corresponding obligation code after the change must be reported in field 29. Use only with the inventory change codes BR, CR, PR and SR.

32. **CAM code:**

Code for installations holding small quantities of nuclear material. The Commission will communicate to the operator the appropriate code. Simplified reporting procedures apply to these operators.

33. **Document:**

Operator-defined reference to supporting document(s).

34. **Container ID:**

Operator-defined container number. Optional data element which can be used in those cases where the container number does not appear in the batch designation.

35. **Correction:**

Corrections have to be made by deleting the wrong line(s) and adding the correct one(s), where appropriate. The following codes must be used:

Code	Explanation
D	Deletion. The line to be deleted must be identified by indicating in field 36 the report number (4), in field 37 the line number (22) and in field 41 the CRC (40) which were declared for the original line. Other fields need not be reported
A	Addition (forming part of a deletion/addition pair). The correct line must be reported with all data fields, including the 'previous report' field (36) and the 'previous line' field (37). The 'previous line' field (37) must repeat the line number (22) of the line being replaced by the deletion/addition pair
L	Late line (stand-alone addition). The late line to be added must be reported with all data fields, including the 'previous report' field (36). The 'previous report' field (36) must contain the report number (4) of the report in which the late line should have been included

36. **Previous report:**

Indicate the report number (4) of the line to be corrected.

37. **Previous line:**

For deletions, or additions forming part of a deletion/addition pair, indicate the line number (22) of the line to be corrected.

38. **Comment:**

Free-text comment field for short comments by operator (replaces separate concise note).

39. **Burn-up:**

For inventory changes of type NP or NL in power reactors, burn-up in MWdays/tonne.

40. **CRC:**

Hash code of line for quality control purposes. The Commission will inform the operator of the algorithm to be used.

41. **Previous CRC:**

Hash code of the line to be corrected.

42. **Advance notification:**

Reference code for the advance notification (Articles 21 and 22). Use with inventory changes SF and RF and with those inventory changes of type SD and RD when the States where the shipper and receiver are located are not party to the same safeguards agreement with the International Atomic Energy Agency and Euratom.

43. **Campaign:**

Unique identifier for the reprocessing campaign. Use only for inventory changes in the process material balance area(s) of spent fuel reprocessing installations.

44. **Reactor:**

Unique identifier for the reactor from which irradiated fuel is being stored or reprocessed. Use only for inventory changes in spent fuel storage or reprocessing installations.

45. **Error path:**

Special code describing measurement errors and their propagation, for material balance evaluation purposes. The codes are agreed between the installation and the Commission.

GENERAL REMARKS CONCERNING THE COMPLETION OF THE REPORTS

1. In the case of transfer of nuclear material, the shipper must provide the receiver with all the necessary information for the inventory change report.

2. If numerical data contain fractions of units, a point should precede the decimal digits.

3. The following 55 characters may be used: the 26 capital letters A to Z, figures 0 to 9 and the characters 'plus', 'minus', 'slash', 'asterisk', 'space', 'equal', 'greater than', 'less than', 'point', 'comma', 'open bracket', 'close bracket', 'colon', 'dollar', 'percent', 'quotation mark', 'semi-colon', 'question mark' and 'ampersand'.

4. Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

5. Reports must be prepared in the XML version of labelled format.

6. The reports, duly completed and digitally signed, should be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX IV

MATERIAL BALANCE REPORT (MBR)

Label/Tag	Content	Comments	#
MBA	Character (4)	MBA code of reporting MBA	1
Report type	Character (1)	M for Material Balance Report	2
Report date	DDMMYYYY	Date on which the report was completed	3
Start report	DDMMYYYY	Starting date of MBR (date of last PIT + 1 day)	4
End report	DDMMYYYY	End date of MBR (date of current PIT)	5
Report number	Number (8)	Sequential number, no gaps	6
Element category	Character (1)	Element category	7
Line count	Number (8)	Total number of lines reported	8
Reporting person	Character (20)	Name of person responsible for report	9
IC code	Character (2)	Type of inventory change	10
Line number	Number (8)	Sequential number, no gaps	11
Element weight	Number (24.3)	Element weight	12
Isotope	Character (1)	G for U-235, K for U-233, J for a mixture of U-235 and U-233	13
Fissile weight	Number (24.3)	Weight of fissile isotope	14
Obligation	Character (2)	Two-character code	15
Correction	Character (1)	D for deletions, A for additions forming part of a deletion/addition pair, L for late lines (stand-alone additions)	16
Previous report	Number (8)	Report number of line to be corrected	17
Previous line	Number (8)	Line number of line to be corrected	18
Comment	Character (256)	Operator comment	19
CRC	Number (12)	Hash code of line for quality control purposes	20
Previous CRC	Number (12)	Hash code of line to be corrected	21

Explanatory notes

1. **MBA:**

   Code of the reporting material balance area. This code is notified to the installation concerned by the Commission.

2. **Report type:**

   M for material balance reports.

3. **Report date:**

   Date on which the report was completed.

4. **Start report:**

   Start date of MBR, date of the day immediately following the day of the previous physical inventory taking.

5. **End report:**

   End date of MBR, date of current physical inventory taking.

6. **Report number:**

   Sequential number, no gaps.

7. **Element category:**

   The following code for categories of nuclear material must be used:

Category	Code
Plutonium	P
High enriched uranium (20 % enrichment and above)	H
Low enriched uranium (higher than natural but less than 20 % enrichment)	L
Natural uranium	N
Depleted uranium	D
Thorium	T

8. **Line count:**

   Total number of lines reported.

9. **Reporting person:**

   Name of person responsible for report.

10. **IC code:**

The different types of inventory information and of inventory change should be entered in the sequence indicated below. The following codes must be used:

Keyword	Code	Explanation
Beginning physical inventory	PB	Physical inventory at the beginning of the reporting period (must be equal to the physical inventory at the end of the previous reporting period)
Inventory changes (for codes, see list below)		For each type of inventory change, 'RB' excluded, one consolidated line has to be entered for the entire reporting period (first increases, then decreases). Inventory changes with original date before the current period should be excluded
Ending book inventory	BA	Book inventory at the end of the reporting period. It must be equal to the arithmetic sum of the MBR entries above
Ending physical inventory	PE	Physical inventory at the end of the reporting period
Material unaccounted for	MF	Material unaccounted for. Must be calculated as 'ending physical inventory (PE)' minus 'ending book inventory (BA)'

For inventory changes, one of the following codes must be used:

Keyword	Code	Explanation
Receipt	RD	Receipt of nuclear material from a material balance area within the European Union
Import	RF	Import of nuclear material from outside the European Union
Receipt from non-safeguarded activity	RN	Receipt of nuclear material from a non-safeguarded activity (Article 34)
Shipment	SD	Transfer of nuclear material to a material balance area within the European Union
Export	SF	Export of nuclear material outside the European Union
Shipment to non-safeguarded activity	SN	Transfer of nuclear material to a non-safeguarded activity (Article 34)
Transfer to conditioned waste	TC	Nuclear material, contained in waste and measured or estimated on the basis of measurements, which has been conditioned in such a way (e.g. in glass, cement, concrete or bitumen) that it is not suitable for further nuclear use. The quantity of nuclear material involved is to be subtracted from the inventory of the material balance area. Separate records must be kept for this type of material

Keyword	Code	Explanation
Discards to the environment	TE	Nuclear material, contained in waste and measured or estimated on the basis of measurements, which has been irrevocably discarded to the environment as the result of a licensed discharge. The quantity of nuclear material involved is to be subtracted from the inventory of the material balance area
Transfer to retained waste	TW	Nuclear material, contained in waste and measured or estimated on the basis of measurements, which has been transferred to a specific location within the material balance area from which it could be retrieved. Waste belonging to this category has not yet been conditioned and is regarded as economically irrecoverable by current technology. The quantity of nuclear material involved is to be subtracted from the inventory of the material balance area. Separate records must be kept for this type of material
Retransfer from conditioned waste	FC	Retransfer of conditioned waste to the inventory of the material balance area. This applies whenever conditioned waste undergoes processing
Retransfer from retained waste	FW	Retransfer of retained waste to the inventory of the material balance area. This applies whenever retained waste is retrieved from the specific location within the material balance area, either for processing in the material balance area or for shipment from the material balance area
Accidental loss	LA	Irretrievable and inadvertent loss of a quantity of nuclear material as the result of an operational accident. Use of this code in the MBR is only allowed if a special report was sent to the Commission when the inventory change occurred or became known
Accidental gain	GA	Nuclear material unexpectedly found, except when detected in the course of a physical inventory taking. Use of this code in the MBR is only allowed if a special report was sent to the Commission when the inventory change occurred or became known
Category change	CE	Accountancy transfer of a quantity of nuclear material from one category (Article 19) to another as a result of an enrichment process
Category change	CB	Accountancy transfer of a quantity of nuclear material from one category (Article 19) to another as a result of a blending operation
Category change	CC	Accountancy transfer of a quantity of nuclear material from one category (Article 19) to another for all types of category change not covered by codes CE and CB
Change in particular obligation	BR	Accountancy transfer of a quantity of nuclear material from one particular safeguards obligation to another (Article 18), to balance the total uranium stock following a blending operation

Keyword	Code	Explanation
Change in particular obligation	PR	Accountancy transfer of a quantity of nuclear material from one particular safeguards obligation to another (Article 18), used when nuclear material enters or leaves an accountancy pool
Change in particular obligation	SR	Accountancy transfer of a quantity of nuclear material from one particular safeguards obligation to another (Article 18), following an obligation exchange or a substitution
Change in particular obligation	CR	Accountancy transfer of a quantity of nuclear material from one particular safeguards obligation to another (Article 18), for all cases not covered by codes BR, PR or SR
Nuclear production	NP	Increase in the quantity of nuclear material due to nuclear transformation
Nuclear loss	NL	Decrease in the quantity of nuclear material due to nuclear transformation
Shipper/receiver difference	DI	Shipper/receiver difference (Article 2) The difference between the quantity of nuclear material in a batch as measured at the receiving material balance area and as stated by the shipping material balance area
New measurement	NM	Quantity of nuclear material, in one particular batch, accounted for in the nuclear material balance area, being the difference between a newly measured quantity and the quantity formerly accounted for, and which is neither a shipper/receiver difference nor a correction
New balance	NB	Quantity of nuclear material accounted for in the material balance area, being the difference between the result of a physical inventory taken by the plant operator for his own purposes (without reporting a physical inventory listing to the Commission) and the book inventory established on the same date
Roundings	RA	Rounding adjustment to make the sum of the quantities reported in a given period coincide with the ending book inventory of the material balance area
Isotope adjustment	R5	Adjustment to make the sum of the isotope quantities reported coincide with the ending book inventory for U-235 of the material balance area
Material production	MP	Quantity of nuclear material, obtained from substances originally not subject to safeguards, which has become subject to safeguards because its concentration now exceeds the minimum levels
Termination of use	TU	Quantity of nuclear material incorporated in products for non-nuclear purposes from which it is regarded as economically irrecoverable by current technology

11. **Line number:**

Sequential number starting with 1, no gaps.

12. **Element weight:**

The weight of the element referred to in field 7 must be reported. All weights must be reported in grams. The decimal digits appearing in the accounting lines can be reported up to a maximum of three decimal places.

13. **Isotope:**

This code indicates the kind of fissile isotopes involved and should be used when the weight of fissile isotopes is reported. Use the code G for U-235, K for U-233, and J for a mixture of U-235 and U-233.

14. **Fissile weight:**

Unless otherwise stated in the particular safeguard provisions, the weight of fissile isotopes must only be reported for enriched uranium and category changes involving enriched uranium. All weights must be reported in grams. The decimal digits appearing in the accounting lines can be reported up to a maximum of three decimal places.

15. **Obligation:**

Indication of the particular safeguards obligation assumed by the Community under an Agreement concluded with a third country or an international organisation, to which the material is subject (Article 18). The Commission will communicate the appropriate codes to the installations.

16. **Correction:**

Corrections have to be made by deleting the wrong line(s) and adding the correct one(s), where appropriate. The following codes must be used:

Code	Explanation
D	Deletion. The line to be deleted must be identified by indicating in field 17 the report number (6), in field 18 the line number (11) and in field 21 the CRC (20) which were declared for the original line. Other fields need not be reported
A	Addition (forming part of a deletion/addition pair). The correct line must be reported with all data fields, including the 'previous report' field (17) and the 'previous line' field (18). The 'previous line' field (18) must repeat the line number (11) of the line being replaced by the deletion/addition pair
L	Late line (stand-alone addition). The late line to be added must be reported with all data fields, including the 'previous report' field (17). The 'previous report' field (17) must contain the report number (6) of the report in which the late line should have been included

17. **Previous report:**

Indicate the report number (6) of the line to be corrected.

18. **Previous line:**

For deletions, or additions forming part of a deletion/addition pair, indicate the line number (11) of the line to be corrected.

19. **Comment:**

Free-text comment field for short comments by operator (replaces separate concise note).

20. **CRC:**

Hash code of line for quality control purposes. The Commission will inform the operator of the algorithm to be used.

21. **Previous CRC:**

Hash code of the line to be corrected.

GENERAL REMARKS CONCERNING THE COMPLETION OF THE REPORTS

General remarks 2, 3, 4, 5 and 6 at the end of Annex III apply *mutatis mutandis*.

ANNEX V

PHYSICAL INVENTORY LISTING (PIL)

Label/Tag	Content	Comments	#
MBA	Character (4)	MBA code of reporting MBA	1
Report type	Character (1)	P for physical inventory listings	2
Report date	DDMMYYYY	Date on which the report was completed	3
Report number	Number (8)	Sequential number, no gaps	4
PIT date	DDMMYYYY	Date on which the physical inventory was taken	5
Line count	Number (8)	Total number of lines reported	6
Reporting person	Character (20)	Name of person responsible for report	7
PIL_ID	Number (8)	Sequential number	8
Batch	Character (20)	Unique identifier for a batch of nuclear material	9
KMP	Character (1)	Key measurement point	10
Measurement	Character (1)	Measurement code	11
Element category	Character (1)	Element category	12
Material form	Character (2)	Material form code	13
Material container	Character (1)	Material container code	14
Material state	Character (1)	Material state code	15
Line number	Number (8)	Sequential number, no gaps	16
Items	Number (6)	Number of items	17
Element weight	Number (24.3)	Element weight	18
Isotope	Character (1)	G for U-235, K for U-233, J for a mixture of U-235 and U-233	19
Fissile weight	Number (24.3)	Weight of fissile isotope	20
Obligation	Character (2)	Two-character code	21
Document	Character (20)	Operator-defined reference to supporting documents	22
Container ID	Character (20)	Operator-defined identifier for the container	23
Correction	Character (1)	D for deletions, A for additions forming part of a deletion/addition pair, L for late lines (stand-alone additions)	24

Label/Tag	Content	Comments	#
Previous report	Number (8)	Report number of line to be corrected	25
Previous line	Number (8)	Line number of line to be corrected	26
Comment	Character (256)	Operator comment	27
CRC	Number (12)	Hash code of line for quality control purposes	28
Previous CRC	Number (12)	Hash code of line to be corrected	29

Explanatory notes

1. **MBA:**

   Code of the reporting material balance area. This code is notified to the installation concerned by the Commission.

2. **Report type:**

   P for physical inventory listings.

3. **Report date:**

   Date on which the report was completed.

4. **Report number:**

   Sequential number, no gaps.

5. **PIT date:**

   Day, month and year when the physical inventory was taken, reflecting the situation at 24.00.

6. **Line count:**

   Total number of lines reported.

7. **Reporting person:**

   Name of person responsible for report.

8. **PIL_ID:**

   Sequential number.

9. **Batch:**

   If batch follow-up is required in the particular safeguard provisions, the batch designation previously used for the batch in an inventory change report or in a previous physical inventory listing must be used.

10. **KMP:**

    Key measurement point. The codes are notified to the installation concerned in the particular safeguard provisions. If no code has been specified, '&' should be used.

11. **Measurement:**

The basis on which the quantity of nuclear material reported was established has to be indicated. One of the following codes must be used:

Measured	Estimated	Explanation
M	E	In the reporting material balance area
N	F	In another material balance area
T	G	In the reporting material balance area when the weights have already been given in a previous inventory change report or physical inventory listing
L	H	In another material balance area when the weights have already been given in a previous inventory change report or physical inventory listing for the present material balance area

12. **Element category:**

The following categories of nuclear material must be used:

Category	Code
Plutonium	P
High enriched uranium (20 % enrichment and above)	H
Low enriched uranium (higher than natural and less than 20 % enrichment)	L
Natural uranium	N
Depleted uranium	D
Thorium	T

13. **Material form:**

The following codes must be used:

Main category	Subcategory	Code
Ores		OR
Concentrates		YC
Uranium hexafluoride (UF_6)		U6
Uranium tetrafluoride (UF_4)		U4
Uranium dioxide (UO_2)		U2
Uranium trioxide (UO_3)		U3
Uranium oxide (U_3O_8)		U8
Thorium oxide (ThO_2)		T2
Solutions	Nitrate	LN
	Fluoride	LF
	Other	LO

Main category	Subcategory	Code
Powder	Homogeneous	PH
	Heterogeneous	PN
Ceramics	Pellets	CP
	Spheres	CS
	Other	CO
Metal	Pure	MP
	Alloys	MA
Fuel	Rods, pins	ER
	Plates	EP
	Bundles	EB
	Assemblies	EA
	Other	EO
Sealed sources	—	QS
Small quantities/samples	—	SS
Scrap	Homogeneous	SH
	Heterogeneous (clean-outs, clinkers, sludges, fines, other)	SN
Solid waste	Hulls	AH
	Mixed (plastics, gloves, papers, etc.)	AM
	Contaminated equipment	AC
	Other	AO
Liquid waste	Low active	WL
	Medium active	WM
	High active	WH
Conditioned waste	Vitrified	NV
	Glass	NG
	Bitumen	NB
	Concrete	NC
	Other	NO

14. **Material container:**

The following codes must be used:

Type of container	Code
Cylinder	C
Pack	P
Drum	D
Discrete fuel unit	S
Bird cage	B
Bottle	F
Tank or other container	T
Other	O

15. **Material state:**

The following codes must be used:

State	Code
Fresh nuclear material	F
Irradiated nuclear material	I
Waste	W
Irrecoverable material	N

16. **Line number:**

Sequential number starting with 1 in each report, no gaps.

17. **Items:**

Each physical inventory line must indicate the number of items involved. If a group of items belonging to the same batch are reported as several lines, the sum of the number of items reported must equal the total number of items in the group. If the lines involve more than one element, the number of items should be declared in the line(s) for the element of highest strategic value only (in descending order: P, H, L, N, D, T).

18. **Element weight:**

The weight of the element referred to in field 12 must be reported. All weights must be reported in grams. The decimal digits appearing in the accounting lines can be reported up to a maximum of three decimal places.

19. **Isotope:**

This code indicates the fissile isotopes involved and should be used when the weight of fissile isotopes is reported. Use the code G for U-235, K for U-233, and J for a mixture of U-235 and U-233.

20. **Fissile weight:**

Unless otherwise stated in the particular safeguard provisions, the weight of fissile isotopes must only be reported for enriched uranium and category changes involving enriched uranium. All weights must be reported in grams. The decimal digits appearing in the accounting lines can be reported up to a maximum of three decimal places.

21. **Obligation:**

Indication of the particular safeguards obligation assumed by the Community under an Agreement concluded with a third country or an international organisation, to which the material is subject (Article 18). The Commission will communicate the appropriate codes to the installations.

22. **Document:**

Operator-defined reference to supporting document(s).

23. **Container ID:**

Operator-defined container number. Optional data element which can be used in those cases where the container number does not appear in the batch designation.

24. **Correction:**

Corrections have to be made by deleting the wrong line(s) and adding the correct one(s), where appropriate. The following codes must be used:

Code	Explanation
D	Deletion. The line to be deleted must be identified by indicating in field 25 the report number (4), in field 26 the line number (16) and in field 29 the CRC (28) which were declared for the original line. Other fields need not be reported
A	Addition (forming part of a deletion/addition pair). The correct line must be reported with all data fields including the 'previous report' field (25) and the 'previous line' field (26). The 'previous line' field (26) must contain the line number (16) of the line being replaced by the deletion/addition pair
L	Late line (stand-alone addition). The late line to be added must be reported with all data fields, including the 'previous report' field (25). The 'previous report' field (25) must contain the report number (4) of the report in which the late line should have been included

25. **Previous report:**

Indicate the report number (4) of the line to be corrected.

26. **Previous line:**

For deletions, or additions forming part of a deletion/addition pair, indicate the line number (16) of the line to be corrected.

27. **Comment:**

Free-text comment field for short comments by operator (replaces separate concise note).

28. **CRC:**

Hash code of line for quality control purposes. The Commission will inform the operator of the algorithm to be used.

29. **Previous CRC:**

Hash code of the line to be corrected.

GENERAL REMARKS CONCERNING THE COMPLETION OF THE REPORTS

If, on the date the physical inventory was taken, there was no nuclear material in the material balance area, only fields 1, 5, 7 and 17 above should be completed on the report.

General remarks 2, 3, 4, 5 and 6 at the end of Annex III apply *mutatis mutandis*.

ANNEX VI

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Advance notification of exports/shipments of nuclear material

1. Reference code: .....

2. Material balance area code: .....

3. Installation (shipper): ..... Installation (receiver): .....

....

4. Quantities split up by category of nuclear material and particular safeguards obligation: .....

5. Chemical composition: .....

6. Enrichment or isotopic composition: .....

7. Physical form: .....

8. Number of items: .....

9. Description of containers and seals: .....

10. Shipment identification data: .....

11. Means of transport: .....

12. Location where material will be stored or prepared: .....

13. Last date when material can be identified: .....

14. Approximate dates of dispatch: .....

Expected dates of arrival: .....

15. Use: .....

16. Supply Agency's contractual reference: .....

Name and position of signatory: .....

Date and place of dispatch of notification: .....

.....
(Signature)

Explanatory notes

1. Reference code for advance notifications to be used in the inventory change report (use up to 8 characters).

2. Code of the reporting material balance area as notified by the Commission to the installation concerned.

3. Name, address and country of the installation shipping, and of the installation receiving, the nuclear material. The receiver of ultimate destination should also be indicated where applicable.

4. The total weight of the elements should be given in grams. The weight of fissile isotopes should be indicated, if applicable. The weights must be split up by category of nuclear material and particular safeguards obligation.

5. Chemical composition should be indicated.

6. If applicable, the degree of enrichment or the isotopic composition should be indicated.

7. Use the description of materials as laid out in Annex III (14) to this Regulation.

8. The number of items included in the shipment should be indicated.

9. Description (type) of containers, including features that would permit sealing.

10. Shipment identification data (e.g. container markings or numbers).

11. Indicate, where appropriate, the means of transport.

12. Indicate the location within the material balance area where the nuclear material is prepared for shipping and can be identified, and where its quantity and composition can if possible be verified.

13. Last date when material can be identified and when its quantity and composition can if possible be verified.

14. Approximate dates of dispatch and of expected arrival at destination.

15. Indicate the use to which the nuclear material has been assigned.

16. Indicate, where appropriate:

    — Supply Agency's contractual reference or, if not available, the date on which the contract was concluded or considered as concluded by the Supply Agency, and any useful references;

    — for jobbing contracts (Article 75 of the Treaty) and for contracts for the supply of small quantities of material (Article 74 of the Treaty, and Commission Regulation No 17/66/Euratom as amended by Regulation (Euratom) No 3137/74), the date of notification to the Supply Agency and any useful references.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX VII

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Advance notification of imports/receipts of nuclear material

1. Reference code: .....

2. Material balance area code: .....

3. Installation (receiver): ..... Installation (shipper): .....

....

4. Quantities split up by category of nuclear material and particular safeguard obligation: .....

5. Chemical composition: .....

6. Enrichment or isotopic composition: .....

7. Physical form: .....

8. Number of items: .....

9. Description of containers and seals: .....

10. Means of transport: .....

11. Date of arrival: .....

12. Location where materials will be unpacked: .....

13. Date(s) when materials will be unpacked: .....

14. Supply Agency's contractual reference: .....

Name and position of signatory: .....

Date and place of dispatch of notification: .....

.....

(Signature)

Explanatory notes

1. Reference code for advance notifications to be used in the inventory change report (use up to 8 characters).

2. Code of the reporting material balance area as notified by the Commission to the installation concerned.

3. Name, address and country of the installation receiving, and of the installation shipping, the nuclear material.

4. The total weight of the elements should be given in grams. The weight of fissile isotopes shall be indicated if applicable. The weights must be split up by category of nuclear material and particular safeguards obligation.

5. Chemical composition should be indicated.

6. If applicable, the degree of enrichment or the isotopic composition should be indicated.

7. Use the description of materials as laid out in Annex III (14) to this Regulation.

8. The number of items included in the shipment shall be indicated.

9. Description (type) of containers and, if possible, of the seals affixed.

10. Indicate, where appropriate, the means of transport.

11. Expected or actual date of arrival in the reporting material balance area.

12. Indicate the location within the material balance area where the material will be unpacked and can be identified, and where its quantity and composition can be verified.

13. Date(s) when material will be unpacked.

14. Indicate, where appropriate:

    — Supply Agency's contractual reference or, if not available, the date on which the contract was concluded or considered as concluded by the Supply Agency, and any useful references;

    — for jobbing contracts (Article 75 of the Treaty) and for contracts for the supply of small quantities of material (Article 74 of the Treaty, and Commission Regulation No 17/66/Euratom as amended by Regulation (Euratom) No 3137/74), the date of notification to the Supply Agency and any useful references.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX VIII

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Declaration of ore exports/shipments (1)

Undertaking (2): .....

Mine (3): ..... Code (4): .....

Year: .....

Date	Consignee	Quantity contained in g:		Remarks
		of uranium	of thorium	

Date and place of dispatch of declaration: .....

Name and position of signatory: .....

.....

(Signature)

Explanatory notes

1. The shipment declaration is to be made at the latest by the end of January of each year for the previous year, with a separate entry for each consignee. The export declaration is to be made for each export consignment at the date of shipment.

2. Name and address of the reporting undertaking.

3. Name of the mine in respect of which the declaration is made.

4. Code of the mine as notified to the undertaking by the Commission.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX IX

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Request for derogation of an installation from the rules governing the form and frequency of reports

1. Date: .....
2. Installation: .....
3. Material balance area code: .....
4. Category of nuclear material: .....
5. Enrichment or isotopic composition: .....
6. Quantities: .....
7. Chemical composition: .....
8. Physical form: .....
9. Number of items: .....
10. Type of derogation (Article 20(2)):
    (a) small quantities kept unchanged for a long period
    (b) non-nuclear activities
    (c) sensing components
    (d) Pu with Pu-238 content greater than 80 %
11. Intended use: .....
12. Particular safeguards obligation: .....
13. Date of transfer: .....

Name and position of signatory: .....

Date and place of dispatch of request: .....

.....
(Signature)

Date: .....

Derogation granted as above

Name and position of signatory granting the derogation: .....

Signature: ..... (for the Commission)

Explanatory notes

This form should be used either when the initial request is made for derogation of an installation from the rules governing the form and frequency of reports, or when nuclear material which may qualify for a derogation is imported from a third country.

Point 13 should be used only in the case of imports.

A separate request should be submitted for each type of derogation (Article 20(2)).

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX X

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Annual report or Export report for derogated nuclear material (1)

MBA code: ..... Declaration date: ..... Declaration No: .....

Name of the installation: ..... Reporting period: from: ..... to: .....

Type of report (2)	Entry (3)	Ref. (4)	Inventory change information (5)	Code or name and address of corresponding installation	Element	Enrichment or isotopic composition	Weight of element	Use		Type of derogation under Article 20(2)
								Nuclear or non-nuclear (6)	Description (7)	

Date and place of dispatch of report: .....

Name and position of signatory: .....

.....

(Signature)

Explanatory notes

1. This form should be used either as an annual report to declare any changes in the inventory of derogated material as well as the stocks at the beginning and at the end of the reporting period (Article 20(3)), or as an export report in the case of exports to a third country (Article 20(4)).

2. The 'Type of report' column should show 'A' when the form is used for an annual report or 'EXP' when the form is used to report exports of derogated nuclear material.

3. 'Entry' in each declaration should be numbered sequentially, beginning with '1'.

4. The 'Ref.' column should be used to refer to another entry. The contents of the 'Ref.' column consist of the relevant declaration and entry numbers (e.g. 10-20 refers to entry 20 of declaration 10). The reference indicates that the current entry adds to or updates information reported earlier. Several references may be inserted, if necessary.

5. The 'Inventory change information' column should be used to state the type of inventory change that occurred during the reporting period and/or the stock at the beginning and at the end of the reporting period.

   A separate entry should be made for each type of derogation, for each corresponding installation and for each type of inventory change.

6. The 'Nuclear or non-nuclear' column should show 'N' if the derogated nuclear material is used in nuclear activities or 'NN' if it is used in non-nuclear activities.

7. The 'Description' column should indicate the actual or intended use of the derogated nuclear material.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX XI

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Guidelines for communicating the outline programme of activities

Communications should, if possible, cover the next two years.

In particular, communications should indicate:

— types of operations, e.g. proposed campaigns with indication of type and quantity of fuel elements to be fabricated or reprocessed, enrichment programmes, reactor operating programmes, with planned shutdowns;

— expected schedule of arrival of materials, stating the amount of material per batch, the form (UF_6, UO_2, fresh or irradiated fuels, etc.), anticipated type of container or packaging;

— anticipated schedule of waste processing campaigns (other than repackaging, or further conditioning without separation of elements), stating the amount of material per batch, the form (glass, high active liquid, etc.), anticipated duration and location;

— dates by which the quantity of material in products is expected to be determined, and dates of dispatch;

— dates and duration of physical inventory taking.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This communication, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX XII

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Advance notification of further waste processing activities (1)

Name of installation: ..... Declaration date: .....

Declaration No: .....

Entry (2)	Ref. (3)	Waste type prior to conditioning (4)	Conditioned form (5)	Number of items (6)	Quantity (7)			Location (8)	Processing location (9)	Processing dates (10)	Processing purpose (11)
					P	H	U-233				

Date and place of dispatch of report: .....

Name and position of signatory: .....

.....

(Signature)

Explanatory notes

1. This form should be used for advance notification when further processing of waste is planned in accordance with Article 32. Any subsequent change in processing dates or processing location should also be notified. A separate entry should be made for each campaign of further processing other than repackaging of the waste, or its further conditioning not involving the separation of elements, carried out for storage or disposal purposes.
2. 'Entry' in each declaration should be numbered sequentially, beginning with '1'.
3. The 'Ref.' column should be used to refer to another entry. The contents of the 'Ref.' column consist of the relevant declaration and entry numbers (e.g. 10-20 refers to entry 20 of declaration 10). The reference indicates that the current entry adds to or updates information reported earlier. Several references may be inserted, if necessary.
4. The 'Waste type prior to conditioning' column should state the type of waste before any conditioning took place, e.g. hulls, feed clarification sludge, high active liquid, or intermediate active liquid.
5. The 'Conditioned form' column should show the current conditioned form of the waste, e.g. glass, ceramic, cement or bitumen.
6. The 'Number of items' column should show the number of items, e.g. glass canisters or cement blocks, to be involved in a single processing campaign.
7. The 'Quantity' column should include the total amount, in grams, of plutonium, high enriched uranium or uranium-233 contained in the items entered in the 'Number of Items' column. The entry in the 'Quantity' column may be based on the quantity data used in the inventory change reports, and does not require a measurement of each item.
8. The 'Location' column should include the name and address of the installation and should show the location of the waste at the time of the declaration. The address must be sufficiently detailed to indicate the geographical position of the location in relation to other locations specified in this or other declarations, and to indicate how the location may be reached should access be necessary. If a location is on the site of a nuclear installation, the installation code should be included in the location column.
9. The 'Processing location' column should show the location where the planned processing is to take place.
10. The 'Processing dates' column should indicate the dates on which the further processing campaign is expected to begin and to end.
11. The 'Processing purpose' column should indicate the intended result of the processing, e.g. recovery of plutonium or separation of specified fission products.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX XIII

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Communication of exports/shipments of conditioned waste (1)

Name of the shipping installation: .....

MBA code of the shipping installation: .....

MBA code of the receiving installation (2): .....

Name and address of the receiving installation (3): .....

.....

.....

.....

Reporting period from ..... to ..... (max. 1 calendar month)

Date	Batch description	Quantities	Remarks
		g of P g of U-235 g of U g of T	
		g of P g of U-235 g of U g of T	
		g of P g of U-235 g of U g of T	
		g of P g of U-235 g of U g of T	

Date and place of dispatch of communication: .....

Name and position of signatory: .....

.....

(Signature)

Explanatory notes

1. Exports/shipments may be grouped by destination in one communication. Communications are to be made no later than 15 days after the end of the month in which the exports/shipments occurred.
2. To be filled in for shipments to installations within the territories of the Member States.
3. To be filled in for exports to installations outside the territories of the Member States, or when the required MBA code under (2) is unknown.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX XIV

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Communication of imports/receipts of conditioned waste (1)

Name of the receiving installation: .....

MBA code of the receiving installation: .....

Name and address of the shipping installation: .....

.....

.....

.....

Reporting period from ..... to ..... (max. 1 calendar month)

Date	Batch description	Quantities	Remarks
		g of P g of U-235 g of U g of T	
		g of P g of U-235 g of U g of T	
		g of P g of U-235 g of U g of T	
		g of P g of U-235 g of U g of T	

Date and place of dispatch of communication: .....

Name and position of signatory: .....

.....

(Signature)

Explanatory notes

1. This communication has only to be made for conditioned waste which has been received from installations without an MBA code or from installations outside the territories of the Member States.

2. Imports/receipts may be grouped by origin in one communication. Communications are to be made no later than 15 days after the end of the month in which the imports/receipts occurred.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.

ANNEX XV

COMMISSION OF THE EUROPEAN COMMUNITIES — EURATOM SAFEGUARDS

Annual report of change in location of conditioned waste (1)

Name of installation: ..... Declaration date: .....

Declaration No: ..... Reporting period: .....

Entry	Ref.	Waste type prior to conditioning	Conditioned form	Number of items	Quantity (7)			Previous location	New location
(2)	(3)	(4)	(5)	(6)	P	H	U-233	(8)	(9)

NB: Entries should be grouped by type of waste (prior to conditioning and after conditioning) and by previous location.

Date and place of dispatch of report: .....

Name and position of signatory: .....

.....

(Signature)

Explanatory notes

1. This annual report should declare any changes in location of wastes covered by Article 33(3) that occurred during the preceding calendar year. A separate entry is required for each change of location during the year.

2. 'Entry' in each declaration should be numbered sequentially, beginning with '1'.

3. The 'Ref.' column should be used to refer to another entry. The contents of the 'Ref.' column consist of the relevant declaration and entry numbers (e.g. 10-20 refers to entry 20 of declaration 10). The reference indicates that the current entry adds to or updates information reported earlier. Several references may be inserted, if necessary.

4. The 'Waste type prior to conditioning' column should show the type of waste before any conditioning took place, e.g. hulls, feed clarification sludge, high active liquid, or intermediate active liquid.

5. The 'Conditioned form' column should show the current conditioned form of the waste, e.g. glass, ceramic, cement or bitumen.

6. The 'Number of items' column should show the number of items, e.g. glass canisters or cement blocks moved during the year from the same originating ('previous') location to the same new location.

7. The 'Quantity' column should include the total amount, in grams, of plutonium, high enriched uranium or uranium-233 contained in the items entered in the 'Number of items' column. The 'Quantity' column may be based on the quantity data used in the inventory change reports, e.g. the average quantity of nuclear material per item, and does not require a measurement of each item.

8. The 'Previous location' column should indicate the location of the waste before the change in location.

9. The 'New location' column should indicate the location after the change.

NB:

Under Article 79 of the Treaty, those subject to safeguards requirements shall notify the authorities of the Member State concerned of any communications they make to the Commission pursuant to Article 78 and the first paragraph of Article 79 of the Treaty.

This form, duly completed and signed, must be forwarded to the European Commission, Euratom Safeguards Office, L-2920 Luxembourg.