

**Regulation on the terms and the procedure for collection and provision of information and
for maintaining registers on the activities pertaining to the application of safeguards in
Connection with the Treaty on the Non-proliferation of Nuclear Weapons**

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Chapter One

GENERAL PROVISIONS

Article 1. This regulation covers:

1. The terms and the procedure for collection and provision of information and for maintaining registers on the activities under the Agreement Between the People's Republic of Bulgaria and the International Atomic Energy Agency for the Application of the Safeguards in Connection with the Treaty on the Non-proliferation of Nuclear Weapons (promulgated OJ, issue 92 of 2000), hereinafter referred to as "the Agreement"
2. The terms and the procedure for collection and provision of information on the activities under the Additional Protocol to the Agreement (promulgated OJ, issue 92 of 2000), hereinafter referred to as the "Additional Protocol".

Article 2. (1) Any person or undertaking carrying out activities subject to the Agreement and the Additional Protocol shall establish and apply internal rules and procedures to register and control the type, quantity, actual location and transfer of nuclear material and its shipment in accordance with the requirements of this regulation.

(2) The persons and undertakings referred to in paragraph 1 shall submit to the chairman of the Nuclear Regulatory Agency (NRA) all the necessary information for fulfilment by the Republic of Bulgaria of the obligations pursuant to the Agreement and the Additional Protocol and shall ensure, to the IAEA inspectors and the accompanying NRA inspectors, the required access on-site in fulfilment of the provisions of the Act on the Safe Use of Nuclear Energy (ASUNE) and this regulation.

Chapter Two
BASIC TECHNICAL CHARACTERISTICS AND PARTICULAR SAFEGUARD
PROVISIONS

Section I

Declaration of the basic technical characteristics

Article 3. (1) Any person or undertaking constructing, commissioning or operating an installation for the production, separation, reprocessing or any use of nuclear materials shall declare to the NRA chairman the basic technical characteristics of the installation, using the relevant questionnaire in Annex I.

(2) For the application of the Additional Protocol a site representative shall be designated for each site. When all installations on-site have common operator, the operator is the site representative. When installations of more than one operator are located on the same site, all operators shall designate the site representative jointly and the NRA chairman shall be duly notified thereof.

(3) By 31 January of each year, the site representative referred to in paragraph 2 shall submit to the NRA chairman a declaration containing a general description of the site using the relevant questionnaire in Annex II.

(4) The declaration referred to in paragraph 3 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.

(5) The declarations provided for in paragraphs 1 and 3 shall be submitted both in paper and in electronic form.

Article 4. (1) The declaration under Article 3, paragraph 1 of new installations shall be submitted to the NRA chairman at least 200 days before the first consignment of nuclear material is due to be received at the installation.

(2) For new installations with an inventory of more than one effective kilogram or annual throughput of nuclear material greater 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 NRA Chairman at least 200 days before construction begins.

Section II

Adoption of particular safeguard provisions and changes to basic technical characteristics

Article 5. (1) For planning NRA control activities, the persons or undertakings referred to in Article 3, paragraph 1, shall submit to the NRA Chairman the following information:

1. An outline programme of activities on the basis of the guidelines given in Annex XI, including provisional dates for taking a physical inventory – each year, not later than 30 November;
2. The physical inventory programme – at least 40 days before programme implementation;

(2) Any changes to the outline programme and the taking of physical inventories shall be immediately reported to the NRA.

Article 6. (1) Acting on the declarations of basic technical characteristics and on the information submitted pursuant to Article 5 and on a IAEA demand, the NRA chairman, following consultations with the operator, may set specific requirements to the particular installation for application of the safeguards.

(2) The specific requirements shall specify:

1. advance notification requirements for changes in the basic technical characteristics set out in Article 3, paragraph 1
2. the contents of the subsequent reports under Article 5, as well as the as well as the conditions requiring advance notification of shipments and receipts of nuclear material
3. the material balance areas and the selection of those key measurement points for determining the flow and stocks of nuclear materials
4. the procedures for keeping records of nuclear materials for each material balance area and for drawing up reports
5. the frequency of, and procedures for, taking physical inventories for accounting purposes as part of safeguards measures
6. the containment and surveillance measures, in accordance with the arrangements agreed upon with the operators

(3) All changes in the basic technical characteristics besides those under paragraph 2, item 1 shall be reported to the NRA chairman within 30 days after the change.

Chapter three
NUCLEAR MATERIAL ACCOUNTANCY
Section I

Nuclear material control and accounting system

Article 7. (1) The persons and undertakings referred to in Article 3, paragraph (1) shall maintain a system of accountancy and control for nuclear materials.

(2) The system referred to in paragraph 1 include accounting and operating records, including information on the quantities, nature, form and composition of these materials as required under Article 17 their actual location and the particular safeguards obligation as provided for in Article 16, together with details of the recipient or shipper when nuclear materials are transferred.

(3) The system of measurements on which the records are based shall comply with the international standards or shall be equivalent in quality to those standards and shall allow the draw up of the declarations under this chapter, as well as the substantiation of their exactness.

(4) Accounting and operational records shall be retained for a period of at least ten years from their creation.

(5) Accounting and operating records shall be made available to the NRA and IAEA inspectors on paper and in electronic form.

(6) Further requirements to the system for accounting and control of nuclear materials maybe specified following the procedure of Article 6 for each particular installation.

Article 8. For each material balance area, the operating records shall include, where appropriate:

1. the operating data used to determine changes in the quantities and composition of nuclear material;
2. a list of inventory items present, and their location, at any time;
3. 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;
4. the data resulting from quality control measures, including derived estimates of random and systematic errors, applied to the nuclear material accountancy system;
5. 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;
6. a description of the actions taken in order to ascertain the cause and magnitude of any accidental or unmeasured loss of nuclear material that might have occurred;

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

Article 9. (1) The accounting records shall show in respect of each material balance area:

1. all inventory changes, so that the book inventory can be determined at anytime;
2. all measurement and counting results used to determine the physical inventory;
3. all corrections made to inventory changes, book inventories and physical inventories.

(2) The accounting records relating to any inventory change and physical inventory shall show the material identification, batch data and source data for each batch.

(3) The records under paragraph 2 shall account separately for uranium, thorium and plutonium, in accordance with the categories listed in Article 17, paragraph 4, item 2.

(4) For each inventory change, the date of the change and, when appropriate, the dispatching MBA and the receiving MBA or the recipient shall be indicated.

Section II

Obligations on information submission

Article 10. (1) The persons and undertakings referred to in Article 3, paragraph 1 shall provide the NRA with accounting reports, which contain the information available on the date of reporting. In case of data change, the accounting reports shall be corrected at a later date.

(2) Accounting reports shall be submitted to the NRA in electronic form.

(3) On a request by the NRA chairman, explanations in connection with the reports shall be provided within three weeks.

Article 11. The persons and undertakings referred to in Article 3, paragraph 1 shall transmit to the NRA chairman an initial book inventory of all nuclear materials they are holding, in accordance with Annex V.

Article 12. (1) The persons and undertakings referred to in Article 3, paragraph 1 shall notify the NRA chairman for coming planned transfer of nuclear material between two MBA on the territory of the Republic of Bulgaria, not later than 15 days before the transfer.

(2) For each material balance area, the persons and undertakings referred to in Article 3, paragraph 1 submit to the NRA chairman inventory change reports (ICR) in respect of all nuclear materials in accordance with Annex III.

(3) The reports referred to in paragraph 2 shall be sent as soon as possible but not later than 15 days of the end of the month in which the inventory changes occur or become known.

(4) Small inventory changes, such as transfers of samples for purposes of analysis, may be reported as one inventory change if laid down in the particular safeguard provisions for the relevant installation referred to in Article 6.

Article 13. (1) For each material balance area, the persons and undertakings referred to in Article 3, paragraph 1 shall submit to the NRA chairman Material balance reports (MBR), in accordance with Annex IV, showing:

1. beginning physical inventory;
2. inventory changes (first increases, then decreases);
3. ending book inventory;
4. ending physical inventory;
5. material unaccounted for.

(2) For each material balance area, the persons and undertakings referred to in Article 3, paragraph 1 shall submit to the NRA chairman a physical inventory listing (PIL), in accordance with Annex V, showing all batches separately.

(3) The reports referred to in paragraph 1 and the listing referred to in paragraph 2 shall be submitted as soon as possible but not later than 15 days from the end of the month in which a physical inventory was taken.

(4) A physical inventory shall be taken every calendar year and the period between two successive physical inventory takings shall not exceed 14 months unless otherwise specified in the particular safeguard provisions for the installation, under Article 6.

Article 14. (1) The persons and undertakings referred to in Article 3, paragraph 1 shall submit to the NRA chairman a special report when:

1. 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 in Article 6
2. if the storage and surveillance conditions has unexpectedly changed from that specified in Article 6, to a point where an unauthorised removal of nuclear material has become possible
3. IAEA seals have been damaged or removed due to technological reasons.

(2) The persons and undertakings shall submit the report referred to in paragraph 1 immediately after being acquainted with the conditions under paragraph 1 or any other information that leads to the believe that the abovementioned conditions have occurred.

(3) The persons and undertakings shall submit a report of the causes for the conditions under paragraph 1, immediately after they become known.

(4) The special reports referred to in paragraph 1, and relevant details or explanations, which may be requested by the NRA chairman, shall be supplied immediately.

(5) The type of information to be supplied in the reports referred to in paragraph 1 is to be specified by the specific safeguard provisions under Article 6.

(6) When due to technological reasons IAEA seals are planned for removal, the persons and undertakings referred to in Article 3, paragraph 1 shall notify the NRA chairman, not later than 15 days before the removal date.

Article 15. (1) The persons and undertakings referred to in Article 3, paragraph 1 operating nuclear reactors shall notify the NRA chairman on the date of reactor shutdown for refueling and the date when the newly loaded reactor core will be prepared for inspection by the IAEA inspectors.

(2) The notification under paragraph 1 shall be done not later than 15 days before the corresponding date.

(3) Calculated data on nuclear transformations in nuclear reactors shall be reported in the inventory change report not later than the date of removal of the irradiated fuel from the reactor MBA.

(4) Specific procedures for recording and reporting nuclear transformations may be specified in the particular safeguard provisions under Article 6.

Article 16. (1) Nuclear materials subject to particular safeguard obligations under an entered into force international agreement concluded with a foreign country or an international organisation shall, unless otherwise stipulated by the agreement, be identified separately for each obligation in the following reports for:

1. Initial book inventory provided for in Article 11;
2. Inventory change reports, including book inventories provided for in Article 12;
3. Material balance reports and physical inventory listings provided for in Article 13;
4. Intended imports and exports provided for in Articles 21 and 22.

(2) Unless specifically prohibited in the international agreement, the requirement for separate information referred to in paragraph 1 shall not preclude the physical mixing of materials.

Article 17. (1) In any report referred to in this Regulation, quantities of materials shall be expressed in grams.

(2) 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 to comply with the IAEA requirements.

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

(4) Unless otherwise provided for in the particular provisions under Article 6, the reports shall include:

1. The total weight of the elements uranium, thorium or plutonium, and also, for enriched materials, the total weight of the fissile isotopes;
2. 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:
 - a) depleted uranium;
 - b) natural uranium;
 - c) uranium enriched to less than 20 %;
 - d) uranium enriched to 20 % and above;
 - e) plutonium;
 - f) thorium.

Article 18. (1) It is allowed not to apply the requirements specified in Articles 10-17 for a MBA, which contains only:

1. small quantities of nuclear material which are kept in the same state for long periods;
2. depleted uranium, natural uranium or thorium which is used exclusively in non-nuclear activities;
3. special fissile materials which are used in quantities of the order of one gram or less as sensing components in instruments;
4. plutonium with an isotopic concentration of plutonium-238 exceeding 80 %.

(2) Persons and undertakings that produce or use nuclear materials meeting the conditions referred to in paragraph 1, submit to the NRA chairman an application based on the form set out in Annex IX.

(3) Based on the application referred to in paragraph 2, the NRA chairman submits a request following Articles 35 and 36 of the Agreement and informs the persons and undertakings referred to in paragraph 2 on the IAEA decision.

(4) The persons or undertakings to whom, according to the decision of the IAEA, the reporting requirements of Articles 10-17 do not apply shall submit to the NRA chairman 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.

(5). In the case of export of nuclear material meeting the requirements of paragraph 1, the persons or undertakings under paragraph 4 shall submit to the NRA, not later than the end of the month in which the transfer occurred, a report using the form set out in Annex X. The report shall indicate the quantity of nuclear material being transferred.

(6) In the case of import of nuclear material meeting the requirements of paragraph 1, the persons or undertakings under paragraph 4 shall submit to the NRA a new application using the form set out in Annex IX to add this material to the list of materials in respect of which the reporting requirements of Articles 10-17 do not apply. The application shall be submitted 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.

(7) In case that the relevant MBA does no longer meet the requirements of paragraph 1, the persons or undertakings under paragraph 4 shall notify the NRA chairman as soon as possible and at the latest 15 days after the end of the month in which the transfer occurred.

Section III

Registers

Article 19. The persons and undertakings referred to in Article 3, paragraph 1 shall maintain the following registers on transfer of nuclear material between the separate MBA points and between different MBA:

1. main register-books (on uranium and plutonium) – to register nuclear material transfer into the MBA and out of it (a separate register book for each MBA);
2. a fresh nuclear fuel book (a separate book for each fresh fuel storage facility);
3. a reactor core book –to register the nuclear material inside the reactor core of each reactor;
4. spent nuclear fuel books (for uranium and plutonium) –to register the transfer of nuclear fuel in the spent fuel pools and the spent fuel storage facilities;
5. fuel assemblies inventory book (ID number, type and enrichment) – for the transfer and the actual location of each individual fuel assembly;
6. fuel assembly accounting log - containing information on its history: manufacturing date, date of receipt, uranium and fissile isotopes content, movement in different key measurement points (KMP) and MBA, working coordinates within the reactor, worked out effective days, burn-up, date of leaving the MBA;
7. a book to register the spent nuclear fuel exported from the country.

Article 20. (1) The NRA Chairman maintains a central register of the nuclear materials.

(2) The central register is kept in an electronic form only and contains the data on nuclear materials and their transfer received through the reports of the persons and undertakings referred to in Article 3, paragraph 1, pursuant to Section II

Chapter four

NUCLEAR MATERIALS IMPORT AND EXPORT

Article 21. (1) The persons and undertakings referred to in Article 3, paragraph 1 shall notify in advance the NRA Chairman in the event of export of source or special nuclear materials where:

(a) the consignment exceeds one effective kilogram; or

(b) 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.

(2) The notification shall be given using the form set out in Annex VI, and shall reach the NRA at least 15 working days before the material is to be packed for transfer.

(3) For the reasons of physical protection of nuclear material, the form and way of submitting the notification shall comply with the requirements of the regulation under Article 113, paragraph 4 of the ASUNE.

Article 22. (1) The persons and undertakings referred to in Article 3, paragraph 1 shall give advance notification to the NRA Chairman in any event of import of source or special nuclear materials where:

1. the consignment exceeds one effective kilogram; or

2. an installation imports or receives a total quantity of nuclear 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.

(2) The notification shall be given using the form set out in Annex VII, and shall reach the NRA at least 15 working days before the expected receipt date.

(3) For the reasons of physical protection of nuclear material, the form and way of submitting the notification shall comply with the requirements of the regulation under Article 113, paragraph 4 of the ASUNE.

Article 23. The persons and undertakings notifying a transfer under Articles 21 and 22 shall submit to the NRA chairman a special report as provided for in Article 14, 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. Any change of date in the packing for transfer, in the transport or in the unpacking of nuclear materials, which does not give rise to special reports, shall be reported immediately with an indication of the revised dates.

Chapter five

SPECIAL PROVISIONS

Section I

Ore production, dispatch and export

Article 25. (1) Any person or undertaking extracting ores in the territory of the country shall keep and store accounting records containing:

1. the quantities of the ore extracted, with the average uranium and thorium content;
2. the stock of extracted ore at the mine;
3. details of shipments, stating the date, consignee and quantity in each case.

(2) The records referred to in paragraph 1 shall be retained for at least 10 years.

Article 26. By 31 January of each year at the latest, ore producers shall inform the NRA Chairman of the amount of material dispatched from each mine during the previous year, using the form in Annex VIII.

Article 27. Any person or undertaking exporting ores shall inform the NRA Chairman on the date of dispatch at the latest, using the form in Annex VIII.

Section II

Shipment, temporary storage and intermediaries

Article 28. (1) During shipment or receipt of nuclear material, any person or undertaking engaged in transporting or temporarily storing, during transport of nuclear materials, shall sign an accept – handover protocol.

(2) The protocol referred to in paragraph 1 shall indicate:

1. accept and handover date;
2. the names of the parties handing over and receiving the materials;
3. the quantities of the materials;
4. the nature, form and composition of the materials.

(3) For the reasons of physical protection of nuclear material, the description of the materials transferred may be replaced by an identification of the consignment, which shall be traceable in the records held by the persons and undertakings referred to in Article 3, paragraph 1.

(4) The protocol referred to in paragraph 1 shall be retained by the contracting parties for at least 10 years.

Article 29. (1) Any intermediaries taking part in the conclusion of any contract for the supply of nuclear materials, shall keep all records relating to the transactions performed by them or on their behalf for at least 10 years after expiry of the contract.

(2) The records referred to in paragraph 1 shall include:

1. identification data of the contracting parties;
2. the date of the contract;
3. the quantity, nature, form and composition of the nuclear material;
4. origin and destination of the materials;
5. identification data of other intermediaries in the contract, if such.

Section III

Waste processing and transfers

Article 30. (1) The persons and undertakings referred to in Article 3, paragraph 1 shall give advance notification to the NRA Chairman of any waste processing campaign, excluding repackaging or further conditioning without separation of elements.

(2) This advance notification shall be done using the form in Annex XII and shall include:

1. the amount of material per batch - plutonium, highly enriched uranium and uranium-233;
2. the chemical and physical form of the waste;
3. the expected duration of the campaign, and the location of the material before and after the campaign.

(3) The notification shall reach the NRA Chairman at least 200 days before the campaign starts.

Article 31. (1) If any of the persons or undertakings referred to in Article 3, paragraph 1 ship or export conditioned waste, they shall upon transfer of these materials, notify the NRA Chairman on 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, paragraph 1 receive or import conditioned waste from an installation without a MBA code or from an installation outside the territory of the Republic of Bulgaria, they shall, upon receipt of these materials, notify the NRA Chairman on the name and address of the shipper, together with the accounting data, using the form in Annex XIV.

(3) The notification under paragraphs 1 and 2 shall be done at the latest 5 days after the month in which the transfer has been done.

(4) The persons or undertakings referred to in Article 3, paragraph 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.

Chapter six

GRANTING INFORMATION ON ACTIVITIES ACCORDING TO THE ADDITIONAL PROTOCOL

Article 32. (1) Any person or undertaking carrying out research and experimental design activities related to the nuclear fuel cycle, but without involvement of nuclear material, shall submit to the NRA Chairman a declaration containing a list and short description of the topics explored in the previous year.

(2) Any person or undertaking manufacturing equipment included in Annex I to Article 2.a.(iv) of the Additional protocol shall submit to the NRA Chairman a declaration describing the activities done in the previous calendar year.

(3) The declaration under paragraph 2 shall include:

1. a list of locations, where the manufacturing work is performed, including details of their geographic location;
2. a list and the quantities of the manufactured equipment;
3. a list of the places with access restrictions.

(4) The declarations under paragraphs 1 and 2 shall be submitted to the NRA Chairperson by 31 March each year at the latest.

Article 33. (1) Any person or undertaking operating mining or processing facility of ore containing uranium or thorium shall submit to the NRA Chairman a declaration with information on:

1. the location of the mine or the ore processing facility, including their geographic coordinates;

2. the operational state of the mine or the processing facility (in operation, temporarily or permanently shutdown, decommissioned);
3. annual output capacity of the mine or the processing facility.

(2) The declaration under paragraph 1 shall be submitted to the NRA Chairperson by 31 March each year at the latest.

Article 34. (1) Any person or undertaking exporting from the Republic of Bulgaria equipment and non-nuclear materials referred to in Annex II to Article 2.a.(ix) of the Additional protocol shall notify the NRA Chairman in writing on any export.

(2) The notification under paragraph 1 shall include:

1. identification and quantity of the equipment or the material;
2. the place in the recipient country where the use is expected to take
3. the export date.

(3) The notification under paragraph 1 shall be done within one month after the export.

Article 35. (1) The competent authorities under the Law for control of foreign trade with weapons and goods and technologies with possible dual use, shall notify the NRA Chairman in writing for the authorised export of equipment and non-nuclear materials referred to in Annex II to Article 2.a.(ix) of the Additional protocol.

(2) The notification under paragraph 1 shall include:

1. the number and date of issue of the authorisation;
2. identification data of the permit holder and of the contracting parties;
3. identification and quantity of the equipment or material;
4. the date of export, respectively, the anticipated date of export.

(3) The notification under paragraph 1 shall be done within one month after issuing of the export permit.

Article 36. (1) State authorities shall present to the NRA Chairman their future 10 year plans for development of the nuclear fuel cycle, including the plans for research and experimental-design activities.

(2) The information under paragraph 1 shall be presented in written form by 31 March each year.

Article 37. (1) The persons and undertakings referred to in Article 32 - 34 shall maintain separate registers on their activities subject to the Additional protocol.

(2) Registers under paragraph 1 shall contain all the information specified in Articles 32 - 34, as well as all relevant data that will enable conducting of follow-up inspections by the IAEA and NRA inspectors.

(3) Registers under paragraph 1 shall be retained for at least 10 years after activity termination.

Article 38. On an IAEA request, the NRA Chairman may require from any person or undertaking with activities subject to the Additional protocol, any additional information under this section.

SUPPLEMENTARY PROVISIONS

§ 1. Within the meaning of this Regulation:

1. 'Item' means an identifiable unit, containing nuclear material, such as a fuel assembly or a fuel pin.
2. 'Batch data' means the total weight of each element of nuclear material and, in the case of uranium and plutonium, the isotopic composition. For reporting purposes the weights of individual items in the batch shall be added together before rounding to the nearest unit.
3. '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.
4. 'Material balance area' means an area with nuclear material or expected loading of nuclear material, such that, for the purpose of establishing the material balance, the quantity of nuclear material in each transfer into or out of this area can be determined and the physical inventory of nuclear material in this area can be determined when necessary in accordance with specified procedures.
5. '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.

6. "Identification data" is the first name, father's name and surname, the personal identification number, the permanent and current address in the Republic of Bulgaria – for physical entities; and the name in full, the administration location and address, the trade registration number, the BULSTAT code and tax number, besides the first name, father's name and surname of persons having representative functions pursuant to the current trade registration – for undertakings (legal entities).
7. "Nuclear material use" includes: energy production in reactors, research work in reactors, "zero power" critical assemblies or installations, conversion, production, processing, storage, isotope separation, ore mining and enrichment, as well as conditioning and storage of waste.
8. 'Discards to the environment' means waste, measured or estimated on the basis of measurements, which has been irrevocably discarded to the environment having the relevant license.
9. '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.
10. 'Key measurement point' (KMP) 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 MBA.
11. 'Conditioned waste' means waste, measured or estimated on the basis of measurements, which has been conditioned in such a way that it is not suitable for further nuclear use.
12. 'Material unaccounted for' means the difference between physical inventory and book inventory.
13. 'Waste' means nuclear material in concentrations or chemical forms which do not permit recovery at present and which may be disposed of.
14. 'Batch' means a portion of nuclear material handled as a unit for accounting purposes at a KMP 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.
15. 'Site' means an area comprising one or more installations, including closed-down or decommissioned installations, the boundaries of which are determined by the NRA Chairman in respect to their relevant basic technical characteristics referred to in Article 3 of this regulation. In the case of a closed-down or decommissioned installation where nuclear material in quantities less than one effective kilogram was customarily used, the site is limited to locations with hot cells or where activities related to conversion, enrichment, fuel fabrication or reprocessing were carried out. The 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 Protocol and identified by the country.
 16. 'Shipper/receiver difference' means the difference between the quantity of nuclear material in a batch as measured at the receiving MBA and as stated by the shipping MBA.
 17. 'Book inventory' of nuclear material of a MBA means the algebraic sum of the most recent physical inventory of that MBA, and of all inventory changes that have occurred since that physical inventory was taken.
 18. 'Closed-down installation' means an installation or location where operations have been stopped and the nuclear material removed but which has not been decommissioned.
 19. 'Installation' means a reactor, a critical assembly, 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.
 20. 'Retained waste' means waste, measured or estimated on the basis of measurements, which has been transferred to a specific location within the MBA 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.

21. '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.

§ 2. Notifications, under this regulation, on activities requiring permits and licenses under the ASUNE shall be done independently of the licensing procedure specified by the ASUNE.

TRANSITIONAL AND FINAL PROVISIONS

§ 3. The persons and undertakings referred to in Article 3, paragraph 1 shall declare the basic technical characteristics of the existing installations within nine months following the enactment of this regulation.

§ 4. The persons and undertakings referred to in Article 3, paragraph 1 operating existing installations do not report initial inventory of nuclear material under Article 11.

§ 5. When installations of more than one operator are located on the same site, the persons and undertakings referred to in Article 3, paragraph 1 operating the installations on-site shall notify the NRA Chairman on the designated site representative in fulfilment Article 3, paragraph 2 within 3 months following the regulation enactment.

§ 6. (1) The persons and undertakings referred to in Article 3, paragraph 1 shall bring their accounting and control systems in conformity with Chapter three of this regulation within 18 months following the regulation enactment.

(2) Until expiring of the time limit specified in paragraph 1, the persons and undertakings referred to in Article 3, paragraph 1 shall submit to the NRA their reports under Chapter three of this regulation following the existing arrangements and the requirements specified by the Agreement.

(3) After expiration of the time-limit specified in paragraph 1 and till the accession date of the Republic of Bulgaria to the European Union, the persons and undertakings referred to in paragraph 1 shall submit to the NRA their accounting reports under Chapter three of this regulation following the requirements specified by the Agreement and using the respective Annexes to this regulation.

§ 7. The NRA Chairman gives instructions and issues regulatory guides, methodologies and other documents on the implementation of this regulation.

§ 8. This regulation is issued on the bases of the Act on the Safe Use of Nuclear Energy, Article 126.

**DECLARATION OF THE BASIC TECHNICAL CHARACTERISTICS
OF THE INSTALLATION**

I. REACTORS

Date

IDENTIFICATION OF THE INSTALLATION

1. Name.
2. Location, exact address, telephone and fax numbers and e-mail address.
3. Owner.
4. Operator.
5. Present status (e.g. under construction, in operation, closed down).
6. Purpose and type.
7. Operating mode influencing the production (shift system, approximate dates of operating periods in the year, etc.).
8. Area layout (map showing the installation, boundaries, buildings, roads, rivers, railways, etc.).
9. Layout of the installation:
 - a) structural containment, fences and access routes:
 - b) incoming-material storage area;
 - c) reactor area;
 - d) test and experiment areas;
 - e) outgoing-material storage area;
 - f) nuclear waste disposal area.
10. Additional data per each 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 (* Items 11 to 16 are to be answered for each type of assembly in the installation)

11. Description of the use of nuclear material (Article 3, paragraph 1).
12. Outline drawings of fuel assemblies, fuel rods (pins, fuel plates, etc.) in sufficient detail to indicate general structure and 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 (brief description of material, purpose and method of use).

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, inventory, 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.
25. Spent fuel storage area:
 - a) drawing of storage area;
 - b) method of storage;
 - c) design storage capacity;
 - d) minimum cooling time before shipment of spent fuel;
 - e) 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 de-cladding and dissolving equipment);
 - c) description of shipping containers for nuclear material and of waste and scrap packaging (to determine whether sealing is possible);
 - d) description of storage area for irradiated and non-irradiated nuclear material;
 - e) drawings of the above areas and equipment, 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.

II. CRITICAL AND ZERO ENERGY INSTALLATIONS

Date

IDENTIFICATION OF THE INSTALLATION

1. Name.
2. Location, exact address, telephone and fax numbers, e-mail addresses.
3. Owner.
4. Operator.
5. Present status (e.g. under construction, in operation, closed down).
6. Purpose and type.
7. Operating mode (shift system adopted, approximate dates of operating periods in the 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(s);
 - c) fuel element assembling area, laboratories, etc.;
 - d) critical assembly properties (to be provided for each critical assembly if more than one in the installation).
10. Additional data for each critical assembly:
 - a) maximum expected operating power and/or neutron flux;
 - b) main types of nuclear material and their enrichment;
 - c) moderator;
 - d) reflector;
 - 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, paragraph 1).

12. Outline drawings of fuel assemblies, fuel rods (pins, fuel plates, etc.), in sufficient detail to indicate general structure and 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.
14. Cladding material of fuel elements.
15. Methods of identifying individual assemblies, rods, pins, plates, etc., if applicable.
16. Other nuclear material used in the installation (brief description of material, purpose and use).

Location and handling of nuclear material

17. Description, including layout drawings, of:
 - a) storage and assembly areas of rods and critical assemblies (inventory locations);
 - b) the estimated range of inventories in these locations;
 - c) the physical arrangement of equipment used for assembling, testing and measuring nuclear material and the routes followed by nuclear material.
18. Sketch of critical assembly core showing core structure, biological shielding, heat removal systems, with relevant justification (to be provided separately 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 (description of item and/or mass accountancy system, including assay and sampling methods used and assessed accuracies, blank forms used in all accountancy and control procedures). Information on accountancy periods.

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 SAFEGUARDS APPLICATION

21. Organisational arrangements for material accountancy and control.
22. Information on the radiation protection and industrial safety rules, which have to be observed at the installation and with which the inspectors must comply.

III. SEPARATE INSTALLATIONS FOR STORAGE OF NUCLEAR MATERIAL

Date.....

IDENTIFICATION OF THE INSTALLATION

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

GENERAL DATA ON 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, paragraph 1).
10. Description, by means of drawings or otherwise, of all nuclear material in the installation, showing:
 - a) all types of items, including 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.

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

Accountancy and control 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 SAFEGUARDS APPLICATION

- 14. Organisational arrangements for material accountancy and control.
- 15. Information on the radiation protection and industrial safety rules, which have to be observed at the installation and with which the inspectors must comply.

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

Date

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

- identification of the installation;
- general description of the installation, including information relating to nuclear material use, accountancy, containment and surveillance;
- description of the use of nuclear material (Article 3, paragraph 1);
- nuclear material accountancy and control system, including techniques for physical inventory taking;
- other information relevant to the application of safeguards.

The information required above is, where applicable, the same as specified in section III of this Annex.

V. INSTALLATIONS WITH SMALL QUANTITIES OF NUCLEAR MATERIAL

Date

For these installations, the total inventory shall be 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:

- an installation with 4 g of plutonium has a percentage inventory equal to 80 % (4/5);
- an installation 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 THE NUCLEAR MATERIAL

1. Name.
2. Location, exact address, telephone and fax numbers, 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, paragraph 1).

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

The holders' obligations have been simplified as following:

A. Limits on holdings and 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 NRA Chairman shall be notified immediately.

B. Accounting and operating records to be maintained

Accounting and operating records shall be kept in a manner permitting ready verification of reports submitted to NRA and of any correction thereto.

C. Inventory change reports (ICR)

Shall be submitted only if an inventory change occurs. A note explaining unusual inventory changes or corrections in former reports shall be attached. In particular, the identification and address shall be given of any entity to which nuclear material is shipped or from whom nuclear material is received.

Even if no inventory change occurred during the year, an ending book inventory by category as at 31 December shall be declared by 31 January of each year.

D. Report form

No special form is required for the report under point C above. The report can be made in the form of a letter.

VI. OTHER INSTALLATIONS
not covered by sections I to V of this Annex
where nuclear material in quantities
not exceeding one effective kilogram is used

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 nuclear material accountancy and control.

GENERAL DESCRIPTION OF THE SITE

Identification of the site

Declaration № Declaration date.....

Reporting period..... Comments.....

Entry	Reference	Installations on-site	Building	General description, including use of contents	Comments

(Name and signature of the site representative)

Explanatory notes:

1. The initial declaration shall include all nuclear installations and all other buildings on their sites. A separate entry shall be made for each building on the site. Subsequent annual update declarations shall include only those installations and buildings, which have undergone a change during the accounting year.
2. The declaration № is a sequential number for each site, starting with 1 for the initial declaration.
3. Comments applicable to the whole of the site.
4. The column “Reference” shall be used to refer to another entry in this or other declaration. The contents of this column consist of declaration number 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 column “Installations on-site” shall indicate the installation codes 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.
6. The column “Building” shall include the building number on the site layout or other designation that provides an unambiguous identification of the building on the schematic map of the site.
7. The column “General description, including use of contents” shall include:
 - a) building dimensions, number of floors and the total square meters of floor space;
 - b) building use, including any prior use, which could influence the sampling results;
 - c) building contents.

Annex 3 to Article 12, paragraph 1

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	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	23
Items	Number (4)	Number of items	24
Element category	Character (1)	Element category	25

Label/Tag	Content	Comments	#
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)	Code of category of nuclear material prior to change. The relevant code after the change shall be reported in line 25. Use for IC codes CB, CC and CE only.	30
Previous obligation	Character (2)	Code of specific obligation to which the nuclear material was subject prior to change. The relevant code after the change shall be reported in line 29. Use for IC codes BR, CR, PR and SR only.	31
CAM code	Character (8)	Code to identify installations with small quantities of nuclear material	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)		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 MW.d/t (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	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.

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)
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

Keyword	Code	Explanation
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	Irrecoverable 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)
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
Rounding	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

11. Batch:

12. **KMP:**

Key measurement point. The codes is according the particular safeguard provisions and if no codes have been specified, '&' should be used.

13. **Measurement:**

The basis on which the quantity of nuclear material reported was established. 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 ICR or PIL
L	H	In another MBA when the weights have already been given in a previous ICR or PIL for the present MBA

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 ₃ O 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
Fuel	Rods, pins	ER
	Plates	EP
	Bundles	EB
	Assemblies	EA
	Other	EO
Sealed sources	—	QS
Small quantities/samples	—	s/s
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

Main category	Subcategory	Code
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	0

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 IC codes RD and RF. For inventory change code RD, the code of the shipping MBA is reported. For code RF, the country code of the exporting State is reported. Shipper's full name and address must be entered in the comment field (38).

18. MBA to:

Use only for IC codes SD and SF. For code SD, the code of the receiving MBA is reported. For code SF, the country code of the importing State is reported. Receiver's full name and address must be entered in the comment field (38).

19. Previous batch:

Batch designation before re-batching. The batch designation after the change 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. 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 MBR. Use only with IC 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.

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 12, reported in grams and to a maximum of three decimal places.

27. Isotope:

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.

29. Obligation:

Indication of the particular safeguards obligation under a specific safeguards agreement concluded with another country or an international organization. The code shall be clarified with the NRA.

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.

33. Documents:

Reference to supporting document(s).

34. Container ID:

Operator-defined container number.

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 25 the report number, in field 26 the line number and in field 29 the CRC, which were declared for the original line
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 repeat the line number 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 of the report in which the late line should have been included

36. Previous report:

Indicate the report number of the line to be corrected.

37. Previous line:

For a deletion/addition pair - the line number of the line to be corrected.

38. Comment:

Free-text comment by operator.

39. Burn-up:

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

40. CRC:

CRC calculated using special algorithm.

41. Previous CRC:

CRC of the line to be corrected.

42. Advance notification:

Reference to advance notification (Articles 21 and 22).

43. Campaign:

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

44. Reactor:

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

45. Error path:

Special code describing measurement errors and their propagation, for material balance evaluation purposes.

Annex 4 to Article 13, paragraph 1

MATERIAL BALANCE REPORT (MBR)

Label/Tag	Content	Comments	#
MBA	Character (4)	MBA code	1
Report type	Character (1)	M for Material Balance Report of nuclear material at the end of an accounting period	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	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)		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)		20
Previous CRC	Number (12)		21

Explanatory notes

1. MBA:

Code of the reporting material balance area.

2. Report type:

M for material balance reports.

3. Report date:

Date on which the report was completed.

4. Start report:

Start date of report - date of the day immediately following the day of the previous physical inventory taking.

5. End report:

End date of report - 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 MBA within the European Union
Import	RF	Import of nuclear material
Receipt from non-safeguarded activity	RN	Receipt of nuclear material from a non-safeguarded activity
Shipment	SD	Transfer of nuclear material to a MBA within the territory of the Republic of Bulgaria
Export	SF	Export of nuclear material
Shipment to non-safeguarded activity	SN	Transfer of nuclear material to a non-safeguarded activity

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 that it is not suitable for further nuclear use. The quantity of such nuclear material involved is to be subtracted from the inventory of the MBA. 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 MBA.
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 MBA 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 MBA. Separate records must be kept for this type of material.
Retransfer from conditioned waste	FC	Retransfer of conditioned waste to the inventory of the MBA. This applies whenever conditioned waste undergoes processing.
Retransfer from retained waste	FW	Retransfer of retained waste to the inventory of the MBA. This applies whenever retained waste is retrieved from the specific location within the MBA, either for processing in the MBA or for shipment from the MBA.
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 NRA when the inventory change occurred or became known.

Keyword	Code	Explanation
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 NRA when the inventory change occurred or became known.
Category change	CE	Accountancy transfer of a quantity of nuclear material from one category to another as a result of an enrichment process.
Category change	CB	Accountancy transfer of a quantity of nuclear material from one category to another as a result of a blending operation.
Category change	CC	Accountancy transfer of a quantity of nuclear material from one category 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 16), to balance the total uranium stock following a blending operation.
Change in particular obligation	PR	Accountancy transfer of a quantity of nuclear material from one particular safeguards obligation to another (Article 16), 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 16), 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 16), 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.

Keyword	Code	Explanation
Shipper/receiver difference	DI	The difference between the quantity of nuclear material in a batch as measured at the receiving MBA and as stated by the shipping MBA.
New measurement	NM	Quantity of nuclear material, in one particular batch, accounted for in the nuclear MBA, 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 MBA, being the difference between the result of a physical inventory taken by the plant operator for his own purposes (without reporting a PIL) and the book inventory established on the same date.
Rounding	RA	Rounding adjustment to make the sum of the quantities reported in a given period coincide with the ending book inventory of the MBA.
Isotope adjustment	R5	Adjustment to make the sum of the isotope quantities reported coincides with the ending book inventory for U-235 of the MBA.
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 in each report, no gaps.

12. Element weight:

The weight of the element referred to in field 12 reported in grams to a maximum of three decimal places.

13. Isotope:

G for U-235, K for U-233, and J for a mixture of U-235 and U-233.

14. Fissile material 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.

15. Obligation:

Indication to be made if the nuclear material is subject of particular safeguards obligation under an agreement concluded with another country or an international organisation. The code shall be clarified with NRA.

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, in field 18 the line number and in field 21 the CRC, which were declared for the original line.
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 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 of the line to be corrected.

18. Previous line:

For deletion/addition pairs - the line number to be corrected.

19. Comment:

Free-text comment by operator.

20. CRC:

CRC calculated using a special algorithm.

21. Previous CRC:

CRC of the line to be corrected.

Annex 5 to Article 11

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 listing	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 PIT was taken	5.
Line count	Number (8)	Total number of lines reported	6.
Reporting person	Character (20)	Name of person responsible for the report	7.
PIL ID	Number (8)	Sequential number	8.
Batch	Character (20)	Unique identifier for a batch	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)	Code of two digits	21.
Document	Character (20)	Reference to supporting documents	22.
Container ID	Character (20)	Operator-defined identifier	23.

Correction	Character (1)	D for deletion, A for addition, L for late	24.
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.

2. Report type:

P for physical inventory taking.

3. Report date:

Date, on which the report was completed.

4. Report number:

Sequential number, no gaps.

5. PIT date:

Date, month, year of the physical inventory taking.

6. Line count:

Total number of lines reported.

7. Reporting person:

Name of person responsible for the report.

8. PIL ID:

Sequential number.

9. Batch:

10. KMP:

Key measurement point. The codes is according the particular safeguard provisions and if no codes have been specified, '&' should be used.

11. Measurement:

The basis on which the quantity of nuclear material reported was established.

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 ICR or PIL
L	H	In another MBA when the weights have already been given in a previous ICR or PIL for the present MBA

12. 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

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 ₃ O 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
Fuel	Rods, pins	ER
	Plates	EP
	Bundles	EB
	Assemblies	EA
	Other	EO
Sealed sources	—	QS
Small quantities/samples	—	s/s

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	0

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 line shall indicate the number of items making up the batch. 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).

18. Element weight:

The weight of the element referred to in field 12, reported in grams and to a maximum of three decimal places.

19. Isotope:

G for U-235, K for U-233 and J for a mixture of U-235 and U-233.

20. Fissile material 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.

21. Obligation:

Indication of the particular safeguards obligation under a specific safeguards agreement concluded with another country or an international organization. The code shall be clarified with the NRA.

22. Documents:

Reference to supporting document(s).

23. Container ID:

Operator-defined container number.

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, in field 26 the line number and in field 29 the CRC, which were declared for the original line
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 repeat the line number 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 of the report in which the late line should have been included

25. Previous report:

Indicate the report number of the line to be corrected.

26. Previous line:

For a deletion/addition pair - the line number of the line to be corrected.

27. Comment:

Free-text comment by operator.

28. CRC:

CRC calculated using special algorithm.

29. Previous CRC:

CRC of the line to be corrected.

Annex 6 to Article 21, paragraph 2

Advance notification of export\shipments of nuclear material

1. Reference code to ICR (up to 8 digits):
 2. MBA 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 for physical inspection of the material:
 14. Approximate date of dispatch:
 15. Purpose of use:
 16. Supply agency's contractual reference:
- Date and place of application submission:
- Name and position of the application signatory:

(Signature)

Explanatory notes

1. The code to be used in the relevant ICR
2. MBA code for which the notification is
3. Name, address and country of the corresponding installation
10. Shipment identification data – for example container number or other markings or numbers
16. Number and/or date of supply contract, as well as any useful references.

Annex 7 to Article 22, paragraph 2

Advance notification of imports\receipts of nuclear material

1. Reference code to ICR (up to 8 digits):
2. MBA code:
3. Installation - receiver: Installation- shipper:
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. Means of transport:
11. Date of arrival:
12. Location where materials will be unpacked:
13. Date when materials will be unpacked:
14. Supply agency's contractual reference:

Date and place of application submission:

Name and position of the application signatory:

.....

(Signature)

Explanatory notes

1. The code to be used in the relevant ICR
2. MBA code for which the notification is
3. Name, address and country of the corresponding installation
14. Number and\or date of supply contract, as well as any useful references.

Declaration of ore export\shipments

Operator:

Mine: Code:

Year:

Date	Consignee	Quantity in grams		Remarks
		uranium	thorium	

Date and place of application submission:

Name and position of the application signatory:

.....

(Signature)

Explanatory notes

1. The shipment declaration shall be made by 31 January of each year, at the latest, for the previous year. Separate line shall be entered in the table for each consignee. The export declaration shall be made for each export consignment, at the latest, at the date of the export.
2. MBA code for which the notification is
3. Name, address and country of the corresponding installation
14. Number and\or date of supply contract, as well as any useful references.

**Application for derogation of an installation from the reporting
rules under Articles 11-17**

1. Date:
2. Installation:.....
3. MBA 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: (according to Article 18, paragraph1):
- 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:
- Date and place of application submission:
- Name and position of the application signatory:
-

(Signature)

Explanatory notes

This form shall be used in initial request for derogation of an installation or when nuclear material that may qualify for derogation is imported.

Point 13 shall be used only in the case of imports or receipts.

A separate application shall be submitted for each derogation under Article 18, paragraph 1.

Annex 10 to Article 18, paragraph 4

Report for nuclear material derogated from application of safeguards

MBA code: Date: Declaration number:

Installation: Reporting period: from to

Type of report	Entry	Ref.	Inventory change information	Code or name and address of corresponding installation	Element	Enrichment or isotopic composition	Weight of element	Use		Type of derogation under Art. 18, para. 1
								Nuclear or non-nuclear	Description	

Date and place of application submission:

Name and position of the application signatory:

.....

(Signature)

Explanatory notes

1. This form shall be used as an annual report to declare any changes in the inventory of material derogated from application of safeguards or as an export report of such material.
2. The column “type of report” shall be filled in with “A” for an annual report or “EXP” for an export.
3. The “Ref.” column shall be used to refer to other entries in this or other declaration. The contents of this 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 “Inventory change information” column shall be used to state the type of inventory change. A separate entry shall be made for each type of derogation.
5. The “Nuclear or non-nuclear” column shall show “N” for nuclear application and “NN” for non-nuclear.
6. The “Description” column shall indicate the actual or intended use of the material.

Annex 11 to Article 5, paragraph 1, point 1

Guidelines for communicating the outline programme of activities, related to the application of safeguards

Communications shall cover the next two years and in particular shall 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 (UF₆, UO₂, 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.

Annex 12 to Article 30, paragraph 2

Advanced notification of further waste processing activities

Installation:..... Date:

Declaration number:.....

Entry	Ref.	Waste type before conditioning	Conditioned form	Number of items	Quantity			Location	Processing location	Processing dates	Purpose
					P	H	U-233				

Date and place of application submission:

Name and position of the application signatory:

.....

(Signature)

Explanatory notes

1. The form shall be used for advance notification when further processing of waste is planned in accordance with Article 30. Any subsequent change in processing dates or processing location shall also be notified.
2. The “Ref.” column shall be used to refer to other entries in this or other declaration. The contents of this 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.
3. The “Waste type before conditioning” column shall state the type of waste before any conditioning took place (e.g. high active liquid, low active liquid, hulls, etc.).
4. The “Conditioned form” column shall show the current conditioned form of the waste (e.g. glass, ceramic, cement or bitumen).

5. The “Number of items” column shall show the number of items (e.g. glass or ceramic blocks) are involved in the processing campaign.
6. The “Quantity” column shall 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. This column may be based on the quantity data used in the ICR and does not require a measurement of each item.
7. The “Location” column shall indicate the name and address of the installation and shall show the location of the location of the waste at the time of the declaration.
8. The “Processing location” column shall show the location where the planned processing is to take place.
9. The “Processing dates” column shall indicate the expected initial and end dates of the processing.
10. The “Purpose” column shall indicate the expected results of the processing (e.g. recovery of plutonium or separation of fission products).

Annex 13 to Article 31, paragraph 1

Report for export\shipment of conditioned waste

Name of the shipping installation:

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

MBA code of the receiving installation:

Name and address of the receiving installation:

.....

.....

Reporting period from to(max. 1 calendar month)

Date	Batch description	Quantities (in grams)	Remarks
		P U-235 U T	
		P U-235 U T	
		P U-235 U T	
		P U-235 U T	

Date and place of application submission:

Name and position of the application signatory:

.....

(Signature)

Explanatory notes

1. The MBA code of the receiving installation shall be filled in for shipments to installations within the territory of the Republic of Bulgaria.
2. Name and address of the receiving installation shall be filed in for exports or when the MBA code of the receiving installation on the territory of the Republic of Bulgaria is unknown.

Annex 14 to Article 31, paragraph 2

Report for import\receipt of conditioned waste

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 (in grams)	Remarks
		P U-235 U T	
		P U-235 U T	
		P U-235 U T	
		P U-235 U T	

Date and place of application submission:

Name and position of the application signatory:

.....

(Signature)

Explanatory notes

1. This report has only to be made for conditioned waste received from installations without an MBA code or from an installation outside the territory of the Republic of Bulgaria.

Annex 15 to Article 31, paragraph 4

Annual report of change in location of conditioned waste

Installation: Declaration date:

Declaration №: Reporting period:

Entry	Ref.	Waste type before conditioning	Conditioned form	Number of items	Quantity			Previous location	New location
					P	H	U-233		

Date and place of application submission:

Name and position of the application signatory:

(Signature)

Explanatory notes

1. This annual report shall declare any changes in location of waste covered by Article 31, paragraph 3 that occurred during the preceding calendar year. A separate entry shall be made for each change in location.
2. The “Ref.” column shall be used to refer to other entries in this or other declaration. The contents of this 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.
3. The “Waste type before conditioning” column shall state the type of waste before any conditioning took place (e.g. high active liquid, low active liquid, hulls, etc.).
4. The “Conditioned form” column shall show the current conditioned form of the waste (e.g. glass, ceramic, cement or bitumen).
5. The “Number of items” column shall show the number of items (e.g. glass or ceramic blocks) moved during the year from the “previous” location to the new location.
6. The “Quantity” column shall 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. This column may be based on the quantity data used in the ICR and does not require a measurement of each item.
7. The “Previous location” column shall indicate the location of the waste before the change in location.
8. The “New location” column shall show the location after the change.