

(This is an unofficial translation of the text effective on April 10, 2017)

Ministerial decree 7/2007. (III. 6.) IRM

on the rules of accountancy and control of nuclear material

Based on the authorization provided for in Point *a*) of Paragraph (1) of Section 68 of Act CXVI of 1996 on Atomic Energy, in harmony with the ministers concerned, for fulfilling the international obligations undertaken by Hungary under the Treaty on the Non-proliferation of Nuclear Weapons resolved on June 12, 1968 by Session No. XXII of the General Assembly of the United Nations Organization that was ratified by Law-decree 12 of 1970, and in Act LXXXII of 2006 on the promulgation of the safeguards agreement and protocol on implementation of Article III, (1) and (4) of the Treaty on the Non-proliferation of Nuclear Weapons (in what follows Safeguards Agreement), and the Additional Protocol attached to the Agreement (in what follows Additional Protocol) I (*the Minister of Justice and Law Enforcement*) order the following:

Chapter I ***GENERAL PROVISIONS***

Scope

Section 1. (1) The power of this decree covers

- a*) each natural and legal person which, in the territory of Hungary or under its jurisdiction or control, possesses nuclear material or performs any nuclear material related peaceful activity including the installation of a facility or location outside of a facility serving for manufacturing, separating, reprocessing, storing of nuclear material or for using it any other way (in what follows *organization possessing nuclear material*);
- b*) each natural and legal person and undertaking without legal entity which, in the territory of Hungary or under its jurisdiction or control, performs any nuclear fuel cycle related activity (in what follows *organization obliged to provide data*);
- c*) any nuclear material used in any peaceful nuclear activity;
- d*) any long-term planning, research and development, fabrication and export-import activities and systems, and site and connecting locations which are in relation with nuclear fuel cycle.

(2) The obligation of this decree to maintain local accountancy system does not cover

- a*) nuclear material transported through the territory of Hungary, and nuclear material transported by transport vehicle owned by a Hungarian natural or legal person or undertaking without legal entity between points outside the territory of Hungary;
- b*) individual companies and undertakings performing public road, rail, water or air transport in relation with transportation of nuclear materials.

Definitions

Section 2. For the purposes of this decree:

1. *Batch*: a portion of nuclear material (which may be in bulk form or contained in a number of separate items), which is handled as a unit for accounting at a key measurement point and for which the composition and quantity are defined by a single set of specifications or measurements.
2. *Batch data*: total weight of each element of nuclear material, in the case of plutonium and uranium, the isotopic composition as well. The units of account shall be as follows:
 - a*) grams of contained plutonium;
 - b*) grams of total uranium and grams of contained uranium-235 plus uranium-233 for uranium enriched in these isotopes;

c) kilograms of contained thorium, natural uranium or depleted uranium.

3. *Material balance area*: an area in or outside of a facility such that:

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

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

in order that the material balance for safeguards purposes can be established.

4. *Safeguards system*: registering, supervision (reporting and data provision) and site inspection system that is established for central accountancy of nuclear materials.

5. *Effective kilogram*: special unit used in safeguard system. The quantity in effective kilograms is 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.

6. *Source data*: data recorded during measurement or calibration or used to derive empirical relationships, which identify nuclear material and provide batch data. Source data may include, for example, 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.

7. *Location specific environmental sampling*: collection of environmental samples (e.g. air, water, vegetation, soil, smears) at, and in the immediate vicinity of a location for the purpose of assisting the drawn conclusions about the absence of undeclared nuclear material or nuclear activities at the specified location.

8. *Wide-area environmental sampling*: collection of environmental samples (e.g. air, water, vegetation, soil, smears) at a set of specified locations for the purpose of assisting the drawn conclusions about the absence of undeclared nuclear material or nuclear activities over a wide area.

9. *Facility*:

a) a nuclear reactor, a nuclear heating plant, a critical system, a conversion plant, a fuel fabrication plant, a reprocessing plant, an isotope separation plant or separate storage installation;

b) any location where nuclear material in amounts greater than one effective kilogram is customarily used.

10. *Location outside facilities*: any installation or location, which is not a facility, where nuclear material is customarily used in amounts of one effective kilogram or less.

11. *Closed-down facility or closed-down location outside facilities*: an installation or location where operations have been stopped and the nuclear material removed but which has not been decommissioned yet.

12. *Decommissioned facility or decommissioned location outside facilities*: 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 utilize nuclear material.

13. *Exemption*: exemption of nuclear material from safeguards on account of its use or quantity.

14. *Key measurement point*: a location where nuclear material appears in such a form that it may be measured to determine material flow or inventory. Key measurement points thus include, but are not limited to, the inputs and outputs and storage in material balance areas.

15. *Nuclear material*:

a) uranium containing the mixture of isotopes occurring in nature, uranium depleted in the isotope 235, thorium, any of the foregoing in the form of metal, alloy, chemical compound or concentrate (in what follows source material); any other material containing one or more of the foregoing in such concentration as shall be specified by the Council of the European Union (in what follows Council), acting by a qualified majority on a proposal from the European Commission;

b) uranium-233, uranium enriched in the isotopes 235 or 233, plutonium-239, plutonium content of irradiated nuclear power plant fuel, any material containing one or more of the foregoing (in what follows special fissionable materials), where

ba) enrichment means the ratio of the combined weight of the isotopes uranium-235 to that of the total uranium in question,

bb) enriched uranium means uranium with enrichment higher than 0.72%,

bc) depleted uranium means uranium with enrichment lower than 0.71%,

- bd*) natural uranium means uranium, as it occurs in nature, with enrichment equals to 0.71-0.72%,
- be*) high enriched uranium means uranium with enrichment equals to or higher than 20%;
- c*) any other fissionable material as shall be specified by the Council, acting by a qualified majority on a proposal from the European Commission;
- d*) any ore containing, in such average concentration as shall be specified by the Council acting by a qualified majority on a proposal from the Commission, substances from which the source materials defined above may be obtained by the appropriate chemical and physical processing.
16. *Nuclear waste*: nuclear material, measured or estimated on the basis of measurements, in concentrations or chemical forms considered as irrecoverable for practical or economic reasons.
17. *Retained waste*: nuclear waste, generated from processing or from an operational accident, measured or estimated on the basis of measurements, which has been transferred to a specific location within the material balance area from which it can be retrieved.
18. *Conditioned waste*: nuclear waste, which has been conditioned in such a way (for example, in glass, cement, concrete or bitumen) that it is not suitable for further nuclear use.
19. *Discards to environment*: nuclear waste, which has been irrevocably discarded to the environment as the result of a planned discharge.
20. *Authority of Nuclear and Radioactive Materials*: the Hungarian Atomic Energy Authority.
21. *Nuclear activity*: possession, generation, production, store, use, modification, domestic trade, export, import, storage or disposal of nuclear material falling under the scope of this decree.
22. *Nuclear fuel cycle-related research and development activity*: those activities which are specifically related to any process or system development aspects of any of the following:
- a*) conversion of nuclear material,
 - b*) enrichment of nuclear material,
 - c*) nuclear fuel fabrication,
 - d*) development of nuclear reactors,
 - e*) development of critical facilities,
 - f*) reprocessing of nuclear fuel,
 - g*) processing (not including repacking or conditioning not involving the separation of elements, for storage or disposal) of intermediate or high level waste containing plutonium, high enriched uranium or uranium-233, but not including activities related to theoretical or basic scientific research and development on industrial radioisotope applications, medical, hydrological and agricultural applications, health and environmental effects and improved maintenance.
23. *Strategic point*: a location selected during examination of design information where, under normal conditions and when combined with the information from all strategic points taken together, the information necessary and sufficient for the implementation of safeguards measures is obtained and verified; a strategic point may include any location where key measurements related to material balance accountancy are made and where containment and surveillance measures are executed.
24. *Site*: that area delimited by the European Atomic Energy Community (in what follows Community) and Hungary
- a*) a facility, including a closed-down facility in the relevant design information;
 - b*) in the relevant information on location outside facilities where nuclear material is customarily used, including a closed-down location outside facilities where nuclear material was customarily used (this is limited to locations with hot cells or where activities related to conversion, enrichment, fuel fabrication or reprocessing were carried out);
 - c*) site shall also include all installations, co-located with the facility or location, for the provision or use of essential services, including hot cells for processing irradiated materials not containing nuclear material; installations for the treatment, storage and disposal of waste; and buildings associated with specified activities identified under Annex I of Additional Protocol.
25. *Site representative*: person, undertaking or organization designated by the Authority of nuclear and radioactive materials for provision of information specified under Subarticle 2 of Article 3 of Commission Regulation No. 302/2005 of February 8, 2005 on the application of Euratom safeguards (in what follows Euratom decree).

Section 3. Beyond those listed in Section 2, the definitions of Article 197 of the Treaty establishing the European Atomic Energy Community issued in Rome on March 25, 1957 (in what follows Euratom Treaty),

Article 98 of the Safeguards Agreement, Article 18 of the Additional Protocol and Article 2 of the Euratom decree shall be applied.

Chapter II ***NUCLEAR MATERIAL ACCOUNTANCY***

Central accountancy system

Section 4. (1)

(2) The aim of the central accountancy system is to fulfill the obligations undertaken by Hungary under the Safeguards Agreement and the Additional Protocol, and those prescribed to Hungary in the Euratom Treaty and Euratom decree.

(3) The *Authority of Nuclear and Radioactive Materials* is responsible for establishing and maintaining the central accountancy system, and for ensuring the fulfillment of obligations described in Paragraph (2).

(4) The central accountancy system is based on data reports of organizations specified in Points *a*) and *b*) of Paragraph (1) of Section 1.

(5) The *Authority of Nuclear and Radioactive Materials* can use the data provided under this decree exclusively for fulfilling its tasks in connection with the obligations described in Paragraph 2, and for operating the safeguards system.

(6)

(7) The central accountancy system of nuclear materials is based on the network of material balance areas specified in accordance with the Euratom decree. Those facilities and locations outside facilities which do not form independent material balance area shall report to the material balance area designated by the *Authority of Nuclear and Radioactive Materials*.

(8) Nuclear materials shall be accounted by batches. The denominations of batches are specified by the *Authority of Nuclear and Radioactive Materials*.

(9)

Local accountancy system

Section 5. (1) The *organization possessing nuclear material* shall maintain a local accountancy system for nuclear materials falling under its provision. The local accountancy system shall meet the requirements described in the Safeguards Agreement.

(2) The organization that launches an activity entailing the obligation of maintaining a local accountancy system, or the organization that was exempted from safeguards based on Article 36 and 37 of the Safeguards Agreement and the reason of exemption is not existed any more shall make an inventory taking, and establish a local accountancy system, within 15 days of launching its activity or the non-existence of the reason of exemption.

(3) The launching of a local accountancy systems is based on inventory listing (first inventory list report), which contains the quantity of nuclear materials in batches on the basis of measured or derived values (physical inventory list). For the report the individual items within a batch shall be summarized before data-round to the closest unit.

(4) Data shall be accounted only on the basis of operating records and other documents.

(5) The local accountancy system shall be maintained such a way that the categories and quantities of nuclear materials possessed by the organization and their content of fissionable material shall be determined any time by elements (uranium, plutonium, thorium).

(6) Any inventory change shall be accounted to the local accountancy system within 3 days as latest. The account shall include the date and reason of change, and the denomination of receiver and shipper.

(7) Physical inventory taking of nuclear materials shall be made annually at the data specified by the *Authority of Nuclear and Radioactive Materials*. The *Authority of Nuclear and Radioactive Materials* will inform the *organization possessing nuclear material* about the date of physical inventory taking 15 days in advance.

(8) The inventory changes shall be reported to the *Authority of Nuclear and Radioactive Materials* by the 8th day of the subsequent month to the date of inventory change; based on the result of physical inventory taking, inventory report and material balance report shall be sent to the *Authority of Nuclear and Radioactive Materials* within 15 working days.

(9) The *Authority of Nuclear and Radioactive Materials* may oblige the *organization possessing nuclear material* for sending occasional, special reports.

Section 6. (1) The *Authority of Nuclear and Radioactive Materials*, if necessary, may ask information, completion and explanation from the *organization possessing nuclear material* beyond those under reporting obligation.

(2) The *organization possessing nuclear material* keeps operating records on activities in relation with nuclear materials being at its disposal. The operating records shall include specially the following:

- a) storage place and method of nuclear materials;
- b) application of nuclear materials, place and date of application;
- c) measurement methods of nuclear material quantity, and the measurement results;
- d) information about controlling ability and inventory listing of nuclear materials;
- e) identification data of surveillance and containment equipment (especially of seals, cameras), and any activity or event in connection with the change in their state, and with explanation of their indications;
- f) with the exemption of *organizations possessing nuclear material* defined in Paragraph (2) of Section 7, the outline programme of activities planned for the actual calendar year.

(3) The documents used for maintaining the accountancy system, and the records of site inspections in accordance with Sections 30-36 shall be regarded as part of operating records.

(4) The procedures and measurement determining the data to be entered to the accounts or operating records shall be established by taking account of the effective national and approved international standards, of measurement standards regarding measuring instruments, and if no such exist then of the most advanced scientific and technical solutions.

(5) If the organization obliged to maintain operating records has no technical and scientific resources necessary for establishing the procedures and performing measurements described in Paragraph (4), then, at its request, the Authority will support their establishment and introduction.

(6) The organization maintaining accountancy system shall ensure the security of accountancy and operating records, and prevent the unauthorized access to these data.

(7) The documents of the nuclear accountancy system and the operating records shall be archived for 5 years subsequent to termination of safeguards.

(8) The application of this decree concerns the Hungarian Defense Forces as a single local accountancy unit.

Section 7. (1) If the *organization possessing nuclear material* form an independent material balance area or independent material balance areas in accordance with the Euratom decree, and it is obliged to maintain independent nuclear material accountancy system and to send nuclear material report to the European Commission, then

- a) the obligations prescribed in Paragraphs (1), (2), (3) and (6) of Section 5 shall be fulfilled by maintaining the accountancy system and operating records as described in Article 7-9 of Euratom decree;
- b) the frequency and date of physical inventory taking prescribed in Paragraph (7) of Section 5 are determined by the *Authority of Nuclear and Radioactive Materials* by taking account of the obligation of physical inventory taking described in Article 13 of the Euratom decree;
- c) the reporting obligation prescribed in Paragraph (8) of Section 5 shall be fulfilled by submitting the nuclear accountancy reports described in Articles 10-14 of Euratom decree simultaneously to the *Authority of Nuclear and Radioactive Materials*;
- d) the outline programme of activities described in point f) of Paragraph (2) of Section 6 shall be elaborated in accordance with Article 5 of the Euratom decree. The outline programme of activities and any of its changes shall be submitted simultaneously to the *Authority of Nuclear and Radioactive Materials*.

(2) The *organization possessing nuclear material* not falling under Paragraph (1)

- a) shall fulfill its accounting obligations prescribed in Paragraphs (1), (2) and (3) of Section 5 by using data sheets No. 1-3 included in Annex 1 of this decree.;
- b) shall fulfill its reporting obligation prescribed in Paragraph (8) of Section 5 by submitting the data sheets as described in Point a) to the *Authority of Nuclear and Radioactive Materials*;
- c) shall not elaborate the outline programme of activities described in Point f) of Paragraph (2) of Section 6.

(3) If the *Authority of Nuclear and Radioactive Materials* notices error in the reports described in Paragraph (8) of Section 5, then the cause of the error shall be identified. If the organization obliged to report notices that the reported data are false, then it shall submit an adjustment or correction report within 5 days.

Section 8. The international nuclear material reporting obligations of *organization possessing nuclear material* not falling under Paragraph (1) of Section 7 are fulfilled by the *Authority of Nuclear and Radioactive Materials* on the basis of the central nuclear material accountancy system.

Section 9. (1) Advance notification shall be sent to the *Authority of Nuclear and Radioactive Materials* about any shipment of nuclear material out of the territory of Hungary where the consignment exceeds one effective kilogram by using data sheet No. 4 of Annex 1 of this decree.

(2) Advance notification shall be sent to the *Authority of Nuclear and Radioactive Materials* about any shipment of nuclear material out of the territory of Hungary where the total quantity of materials to the same country could exceed one effective kilogram on any consecutive period of three months, even though no single consignment exceeds one effective kilogram by using data sheet No. 4 of Annex 1 of this decree.

(3) If all nuclear material are prepared for shipment at the same time, then the notification shall be sent three weeks in advance to the *Authority of Nuclear and Radioactive Materials*; otherwise at least three weeks before the preparation of the single consignments.

Section 10. (1) Advance notification shall be sent to the *Authority of Nuclear and Radioactive Materials* about any receipt of nuclear material within the territory of Hungary where the consignment exceeds one effective kilogram at least two weeks before the nuclear material is unpacked, by using data-sheet No. 5 of Annex 1 of this decree.

(2) Advance notification shall be sent to the *Authority of Nuclear and Radioactive Materials* about any receipt of nuclear material within the territory of Hungary where the total quantity of materials from the same country could exceed one effective kilogram on any consecutive period of three months, even though no single consignment exceeds one effective kilogram, at least two weeks before the nuclear material of the first such consignment is unpacked, by using data sheet No. 5 of Annex 1. The other consignments shall be indicated at the same time when the notification on the first consignment is submitted, or individually at least before the nuclear material is unpacked.

(3) The *Authority of Nuclear and Radioactive Materials* declares in writing its intention of planned site inspection at least 24 hours before the time of unpacking indicated in the advance notification.

Section 11. (1) Transport of nuclear material to the territory of Hungary is forbidden without providing data sufficient for fulfilling obligations concerning nuclear material accountancy.

(2) The contract concerning international transport of nuclear material as goods or as other title shall refer to the prescription of Paragraph (1).

(3) The *organization possessing nuclear material* receiving a consignment containing nuclear material that exceeds one effective kilogram shall prescribe in the transport contract that the supplier will provide the relevant data of consignment and expected date of receipt one month before the receipt of the consignment. These data shall be submitted to the *Authority of Nuclear and Radioactive Materials* without delay by the Hungarian shipper and/or receiver *organization possessing nuclear material*.

Section 12. If, based on subsequent measurements or inspections, any difference appears in data falling under reporting obligation that are included in specifications or other technical documents of the supplier, then this shall be reported to the *Authority of Nuclear and Radioactive Materials* without delay in accordance with the provisions concerning adjustments and corrections.

Section 13. (1) The leader of the organization is legally responsible for fulfilling the prescriptions of this decree. The leader is responsible for the clear determination of the responsibilities and authorities in relation with the implementation of the decree. He/she shall appoint one person from the management in writing, who in addition to his/her other assignments shall ensure the leader in writing on the appropriate operation of the safeguards system and the establishment of internal procedures guaranteeing the operation.

(2) In order to execute the tasks prescribed in this decree, the leader of the organization may designate safeguards officer(s). The name(s) of safeguards officer(s) shall be put in internal regulating documents.

Chapter III. **DATA PROVISION**

Section 14. (1) The *organization possessing nuclear material* shall provide the *Authority of Nuclear and Radioactive Materials* with preliminary data on the basic technical characteristics of its activity in accordance with the requirements prescribed in Articles 42-44 of the Safeguards Agreement and Articles 3-4 of Euratom decree. The data provided shall include the following:

- a) name and address of the organization;
- b) type and objective of its activity, used technology, applied safety and health regulations;
- c) general description of nuclear material, its quantity, geographic location, movement and handling;
- d) information regarding the supervision and control of, and accounting for nuclear materials;
- e) technical data of buildings relating to nuclear activity, technical data and technological parameters of equipment relating to nuclear activity.

(2) The changes in data specified in Paragraph (1) shall be reported in writing to the *Authority of Nuclear and Radioactive Materials* without delay.

Section 15. (1) In the case of new facilities the basic technical characteristics shall be submitted as early as possible

- a) when the decision on construction is made or when the authorization for launching the construction is granted, depending upon which of the foregoing occurs earlier, in case of activity requiring environmental effect analysis when the environmental protection license becomes effective;
- b) when the application for installation license is submitted;
- c) when the application for construction license is submitted;
- d) when the application for commissioning license is submitted;
- e) when the application for first safeguards license is submitted;
- f) when the application for modification safeguards license is submitted.

(1a) The changes in data of basic technical characteristics or data submitted in the application for first safeguards license shall be provided when the license application defined in Point f) of Paragraph (1) is submitted.

(2) The *organization possessing nuclear material* shall provide the *Authority of Nuclear and Radioactive Materials* with data relating to those locations outside facility serving its activity, where nuclear material is received. The data shall be provided to the *Authority of Nuclear and Radioactive Materials* as early as possible, but at least 7 month before the nuclear material is received. Any changes in submitted data relating locations outside facility shall be reported within 15 days to the *Authority of Nuclear and Radioactive Materials*.

Section 16. (1) If the *organization possessing nuclear material* is obliged to provide data to the European Commission in accordance with Subarticle (1) of Article 3 of Euratom decree, then it may fulfill its data provision obligation prescribed in Section 14 by sending data sheet made according to the Annex 1 of the Euratom decree to the European Commission, and simultaneously to the *Authority of Nuclear and Radioactive Materials*.

(2) The *organization possessing nuclear material* not falling under Paragraph (1) shall report the data described in Section 14 to the *Authority of Nuclear and Radioactive Materials* 30 days before launching its nuclear material related activity, and/or receiving the nuclear material.

Section 17. (1) In order to fulfill the obligation prescribed in Subpoint iii of Subarticle a) of Article 2 of Additional Protocol the *Authority of Nuclear and Radioactive Materials*, in harmony with the Community and in accordance with the Subarticle (21) of Article 2 and Subarticle (2) of Article 3 of Euratom decree, assigns sites relating to nuclear materials. (2) The *Authority of Nuclear and Radioactive Materials* performs the tasks of the site representative that is responsible for providing information necessary for fulfilling the obligation prescribed in Paragraph (1), as defined in Subarticle (22) of Article 2 and Subarticle (2) of Article 2 of the Euratom decree. In order to fulfill the tasks of the site representative, the *Authority of Nuclear and Radioactive Materials* may ask data provision from the organizations belong to the given site. The concerned organization shall provide the *Authority of Nuclear and Radioactive Materials* with all data relating to nuclear materials and activities falling under the scope of this decree. The *Authority of Nuclear and Radioactive Materials* is responsible for collecting the relevant data and submitting the general description of the site to the European Commission. The person or undertaking constructing or operating the facility is responsible for correctness and entireness of information relating to the facility. The *Authority of Nuclear and Radioactive Materials* is responsible for correctness and entireness of information relating to buildings not containing nuclear material.

(3) The *organization possessing nuclear material* shall submit the site description (geographical location, map, layout, buildings belonging to the site, their relevant technical parameters and the activities performed inside) to the *Authority of Nuclear and Radioactive Materials*, using data sheet No. 2 of Annex 2, by February 15 of each year. The site map shall be attached to the data sheet.

Section 18. (1) The *organization obliged to provide data* that possesses such source material, which is, based on its chemical composition and purity is not applicable for fuel fabrication or isotope enrichment, shall submit a report regarding the previous year to the *Authority of Nuclear and Radioactive Materials*, using data sheet No. 5 of Annex 2, on the stock of source material, the quantity of source material shipped out from the territory of Hungary and received from outside the territory of Hungary, by February 15 of each year.

(2) The *organization obliged to provide data* that exports any equipment or material listed in Annex II of the Additional Protocol out from the territory of Hungary shall submit quarterly report on the shipped equipment and materials to the *Authority of Nuclear and Radioactive Materials*, using data sheet No. 9 of Annex II of this decree, within 30 days subsequent to the end of the quarter.

(3) The organization obliged to provide data that imports any equipment or non-nuclear material listed in Annex II of the Additional Protocol from outside the territory of Hungary shall submit report on the received equipment and materials to the *Authority of Nuclear and Radioactive Materials*, using data sheet No. 8 of Annex II of this decree, at the written request of the Authority, within 30 days subsequent to the receipt of the request.

Section 19. The *organization possessing nuclear material* that possesses nuclear material or performs activity falling under Article 24-25 (producing ore) and/or Article 30 (treating and storing nuclear waste) of Euratom decree shall submit the copy of its reports sent to the European Commission in accordance with Article 24-25 and/or Article 30-32 of the Euratom decree simultaneously to the *Authority of Nuclear and Radioactive Materials*.

Section 20. The *organization obliged to provide data*, which operates uranium mine, uranium ore enrichment or thorium enrichment facility, or works as the legal successor of the operator in case of a closed uranium mine, shall declare its activity by using data sheet No.4 of Annex 2 of this decree. The filled up data sheets shall be submitted to the *Authority of Nuclear and Radioactive Materials* by February 15 of each year.

Section 21. The *organization obliged to provide data* that stores, plans to further process or performs the processing of such medium or high activity radioactive waste, which contains plutonium, high enriched uranium or uranium-233, and on which the safeguards are terminated pursuant to Article 11 of Safeguards Agreement shall submit report to the *Authority of Nuclear and Radioactive Materials* by using data sheet No.7 of Annex 2 of this decree. The starting of further processing shall be declared to the *Authority of Nuclear and Radioactive Materials* 7 months in advance by using this data sheet,.

Section 22. (1) The *organization obliged to provide data* that conducts nuclear fuel cycle related research and development activity not involving nuclear material and/or conducts any activity listed in Annex I of the Additional Protocol shall declare its activity to the *Authority of Nuclear and Radioactive Materials*, using data sheets No.1 and No.3 of Annex 2 of this decree, by February 15 of each year.

(2) The *Authority of Nuclear and Radioactive Materials* annually provides the International Atomic Energy Agency with data on the general plans for the succeeding ten-year period relevant to the development of the nuclear fuel cycle (including planned nuclear fuel-cycle related research and development activities). In order to fulfill this international obligation the *Authority of Nuclear and Radioactive Materials* may request data from other governmental and state organizations by using data sheet No.9 of Annex 2 of this decree.

Section 23. If the fulfillment of the obligations undertaken by Hungary under the Safeguards Agreement and the Additional Protocol, and of those prescribed in the Euratom Treaty and the Euratom decree makes it necessary, then the *Authority of Nuclear and Radioactive Materials* may oblige the *organizations possessing nuclear material* and the *organizations obliged to provide data* to provide occasional data and information and to submit occasional reports beyond those described in Sections 14-22.

Section 24. (1) The *organization possessing nuclear material*, to whom derogation has been granted pursuant to Article 19 of Euratom decree from any rules described in Articles 10-18 thereof, shall inform the *Authority of*

Nuclear and Radioactive Materials about the granting and the withdrawal of the derogation in writing, without delay. The copy of documents certifying the derogation or its withdrawal shall be attached.

(2) The *organization possessing nuclear material*, the nuclear material of whose has been exempted from international safeguards pursuant to Articles 36 and 37 of the Safeguards Agreement, shall inform the *Authority of Nuclear and Radioactive Materials* about the granting and the withdrawal of the exemption in writing, without delay. The copy of documents certifying the exemption or its withdrawal shall be attached.

(3) The derogation as described in Paragraph (1) and the exemption from safeguards as described in Paragraph (2) shall be indicated in the local accountancy system of the *organization possessing nuclear material* and in the central accountancy for nuclear materials.

(4) The *organization possessing nuclear material* shall submit a report to the *Authority of Nuclear and Radioactive Materials* on nuclear material exempted from international safeguards, using data sheet No. 6 of Annex 2 of this decree, by February 15 of each year.

Section 25. The *organization possessing nuclear material* shall report in writing to the *Authority of Nuclear and Radioactive Materials* without delay, if

- a) any loss or gain has been found in the physical inventory of nuclear materials;
- b) accidental loss of nuclear material has occurred or may occur, or its well-grounded suspicion does exist;
- c) such accidental event has occurred or may occur, which will affect the ability to control the nuclear material.

Section 26. The *Authority of Nuclear and Radioactive Materials* may request data from the data provider relating its activity independently of the fact whether the Authority obtained its information from reports prescribed in this decree and submitted by the organization performing the activity, or from other authorized source. The requested person or undertaking shall provide the requested data within the deadline determined by the *Authority of Nuclear and Radioactive Materials*.

Chapter IV

INSPECTION OF NUCLEAR MATERIALS

Section 27. (1) Fulfillment of obligations related to inspection of nuclear materials as undertaken in international agreements is ensured by keeping the nuclear materials under comprehensive control. The comprehensive control is implemented through application of an efficient safeguards system and continuous application of the whole system of regulatory control tools.

(2) In order to develop and continuously operate the efficient safeguards system of nuclear materials the *Authority of Nuclear and Radioactive Materials* applies the following tools of the regulatory system:

- a) preliminary checks during safeguards licensing procedures if the safeguards measures to be implemented by the *organization possessing nuclear material* are appropriate for complying with the requirements, for efficient implementation of control activity, and if they facilitate the meeting of site inspection objectives;
- b) ensures continuous supervision in relation to nuclear materials and to nuclear material related activities by prescribing information provision obligations and by processing the submitted reports;
- c) verifies during site inspections the information obtained through information provision and inspects the equipment and operation of containment and surveillance system, and the real and efficient implementation of the prescribed safeguards measures.

Safeguards licensing procedures

Section 28. (1) Safeguards licensing procedure of nuclear and radioactive materials is obligatory to:

- a) possess nuclear material and launch any activity related thereto (first safeguards license);
- b) launch any modification important to safeguards (modification safeguards license);
- c) transport nuclear materials not requiring export-import license according to separate law to and from the territory of Hungary (safeguards transport license);
- d) termination of safeguards requirements subsequent to termination of nuclear activities (safeguards termination license).

(2) In the application aimed at obtaining the first safeguards license, the applicant shall describe:

- a) major characteristics of the site (organization, site map, layout, surrounding, access routes, operating conditions, etc.), names and contacts of the owner, operator and of the manager responsible for implementation of safeguards, and activities planned to be performed at the site;
- b) local accountancy system for nuclear materials, measures guaranteeing the security and safety of accountancy system and accountancy data, and procedure of preparing safety copies;
- c) name of material balance areas and those strategic points, which are key measurement points of flow and inventory of nuclear materials;
- d) measurement, calculation and evaluation methods for determining the quantity of nuclear materials;
- e) frequency and procedures of accountancy related physical inventory taking;
- f) technical characteristics ensuring the identification of batches of nuclear materials;
- g) structure of internal safeguards organization, name(s) and contact(s) of designated facility and site safeguards officer(s), duty order of facility safeguards officers;
- h) surveillance and containment measures ensuring control of nuclear material flow;
- i) access procedure of national and international inspectors, with the related health and safety prescriptions;
- j) access procedure of national and international inspectors, with the related health and safety prescriptions.

(3) Application for the first safeguards license shall be submitted to the *Authority of Nuclear and Radioactive Materials* at least 3 months, in case of facility at least 7 months before the receipt of the first nuclear material at the site.

(4) Modifications important to safeguards include modification/change of:

- a) local accountancy system for nuclear materials;
- b) name of material balance areas and modification of those strategic points, which are key measurement points of flow and inventory of nuclear materials;
- c) measurement, calculation and evaluation methods used for determination of the quantity of nuclear material, development of new measurement, calculation and evaluation techniques;
- d) frequency and procedures of accountancy related physical inventory taking;
- e) technical characteristics ensuring the identification of batches of nuclear materials;
- f) name and contact details of the owner, operator or the person responsible for the implementation of safeguards, structure of internal safeguards organization, assigned site safeguards officer;
- g) surveillance and containment measures ensuring supervision of nuclear material flow;
- h) exemption of nuclear materials from the requirements of this decree, and termination of exemption of exempted materials;
- i) access procedure of inspectors, duty order of facility safeguards officers.
- j) the licensed way how the safeguards requirements are met; and
- k) main data of the site, activities performed on the site.

(5) In the application for safeguard modification license the applicant shall demonstrate that the state after the modification meets the safeguards requirements.

(6) In the application for transport safeguard license the applicant shall describe

- a) the whole quantity of nuclear material to be shipped, its fissile material content by isotopes, chemical composition, physical form, isotope composition;
- b) number of objects to be transported;
- c) type of transport containers (also technical characteristics of sealing in case of export);
- d) in case of export the destination country and site, in case of import the material balance area and site where the material is unpacked;
- e) tool of transport;
- f) in case of export the place of preparation for shipping;
- g) in case of export the last day when the identification of the material, its quantity and composition can be verified, in case of import the day when the material is to be unpacked, when its quantity and composition can be verified;
- h) expected time of beginning the shipment and arrival to destination;
- i) place of transfer of responsibility for the shipment.

(7) At granting the shipment safeguards license the *Authority of Nuclear and Radioactive Materials* issues shipment or receipt certification for the *organization possessing nuclear material*.

(8) In the application for termination safeguards license the applicant shall describe the way how the nuclear material pass out of the responsibility of the organization, the steps for final termination of the activity, and the documentation related to nuclear materials for the preceding 5 years.

Cooperation with international organizations

Section 29. The *Authority of Nuclear and Radioactive Materials*, in accordance with its international obligations, during the safeguards licensing procedures, to the necessary extent shall perform harmonization with the concerned international organizations, and shall supply them with information for conducting international site inspections.

Authority site inspection

Section 30. The *Authority of Nuclear and Radioactive Materials* is authorized to inspect the fulfillment of obligations of this decree, and of those undertaken by Hungary under the Safeguards Agreement and the Additional Protocol, and of those prescribed in the Euratom Treaty and in the Euratom regulation at *organization possessing nuclear material* and at *organization obliged to provide data*, and at any part of its site.

Section 31. The objective of site inspections performed by the *Authority of Nuclear and Radioactive Materials* is

- a) to ascertain if the information provided to the *Authority of Nuclear and Radioactive Materials* when fulfilling the information provision requirements are in agreement with the real situation, and
- b) to review the safeguards related processes and activities based on valid national and international legislations.

Section 32. The *Authority of Nuclear and Radioactive Materials* is authorized to perform inspection at any organization, if it presumably possesses material or performs activity belonging under the effect of this decree. Inspectors of the International Atomic Energy Agency may take part in this site inspections. The objective of this inspection may solely be to prove or exclude the existence of the material or the activity in question.

International site inspection

Section 33. (1) For verifying the fulfillment of obligations undertaken by Hungary under the Safeguards Agreement and the Additional Protocol the inspectors of the International Atomic Energy Agency are authorized to perform site inspections at *organization possessing nuclear material* and at *organization obliged to provide data*, and at any part of its site.

(2) For verifying the fulfillment of obligations prescribed in the Euratom Treaty and in the Euratom regulation and undertaken by Hungary under the Safeguards Agreement and the Additional Protocol, the inspectors of the European Commission are authorized to perform site inspections at *organization possessing nuclear material* and at *organization obliged to provide data*.

(3) Scope and rules of international site inspections described in Paragraphs (1) and (2) is contained by the Articles 77-85 of the Euratom Treaty, Articles 48 and 70-84 of the Safeguards Agreement, and Articles 4-9 of the Additional Protocol.

(4) Mutual and prompt information supply shall be realized between the *Authority of Nuclear and Radioactive Materials* and the organization at where the international inspection is to be carried out:

- a) if the International Atomic Energy Agency or the European Commission initiates the international inspection by notifying the *Authority of Nuclear and Radioactive Materials*, then the *Authority of Nuclear and Radioactive Materials* promptly informs the concerned organization about the time, place and objective of the inspection.;
- b) if the International Atomic Energy Agency or the European Commission initiates the international inspection by notifying directly the inspected organization, then the concerned organization shall promptly inform the *Authority of Nuclear and Radioactive Materials* about the time, place and objective of the inspection.

(5) The *Authority of Nuclear and Radioactive Materials* is authorized to take part in every international site inspection of Paragraphs (1) and (2). If the *Authority of Nuclear and Radioactive Materials* announces its intention to take part in the international site inspection, then the international inspection shall not be commenced until the arrival of the inspector of the *Authority of Nuclear and Radioactive Materials*.

(6) The international inspection shall be recorded. The records shall contain the place and time of the inspection, the name of those taken part therein, the description and results of the inspection, the revealed deficiencies and the measures implemented to eliminate them. The inspection records shall be made part of the operating records of the inspected organization. A copy of the inspection records shall promptly be sent to the *Authority of Nuclear and Radioactive Materials*.

Section 34. (1) The International Atomic Energy Agency conducts the international site inspection by its designated inspectors that are accepted by Hungary in accordance with Articles 9 and 85 of the Safeguards Agreement and with Article 11 of the Additional Protocol.

(2) The European Commission conducts the international site inspections by the contribution of inspectors designated in accordance with Article 81 of the Euratom Treaty after consultation with Hungary.

(3) The list of international inspectors of Subarticles (1) and (2) is accepted in Hungary by the *Authority of Nuclear and Radioactive Materials*. The list of accepted inspectors, at the request of the inspected organization, is sent to the inspected organization by the *Authority of Nuclear and Radioactive Materials*.

(4) Only those international inspectors are authorized to perform international site inspection, who are accepted in accordance with Subarticle (3).

Rights of inspectors, obligations of inspected organization

Section 35. Employee of the *Authority of Nuclear and Radioactive Materials* or of the competent international organization performing the site inspection (in what follows: inspector)

a) may, in order to meet the objectives of the inspection, request oral or written information, perform observations, prepare copies of documents, make voice records and photos, carry out measurements;

b) may use his/her own instruments for the activities listed in point a);

c) may, in order to enhance the efficiency of the inspections, install surveillance, monitoring or video recording equipment, and may, in order to prevent unauthorized access to nuclear materials and to the installed tools, apply containment methods and means.

Section 36. (1) The inspected organization shall provide for that

a) the inspector can access the inspected site without obstacle and delay;

b) the inspector can learn the general obligatory and, with regard to the type of *organization possessing nuclear material*, the separately specified emergency, health, and radiation protections rules;

c) the safeguards officer or his/her deputy, in order to ensure the inspection, shall attend the inspection, and the representative authorized to decide shall be available, if necessary.

(2) The inspector during the site inspection shall

a) learn and follow the rules of paragraph b) of Subarticle (1);

b) not instruct the employee of the inspected organization, not handle any equipment belonging to the facility.

(3) If the inspectors during the inspection consider that in order to meet the objectives of the inspection the operator of the facility should carry out any special operating action in the facility, then he/she provides recommendation on that, which, taking the safety of the facility into account, shall be ordered by the manager or the employee authorized to make decision of the *organization possessing nuclear material*.

Chapter V CLOSING PROVISIONS

Section 37. (1) This decree shall enter into force on the 30th day after promulgation. Its provisions shall be applied in the procedures thereafter, taking account of Section 38.

Section 38. (1) The organization that possesses nuclear material at the time of entering into force of the decree shall, based on a review, shall submit a report to the *Authority of Nuclear and Radioactive Materials* within 6 months after the entering into force of the decree. In the report the *organization possessing nuclear material* shall state that which of those requirements of the decree, either new or different from the requirements of the earlier law, that are authoritative for the organization, are not met partially or fully.

(2) In the report the *organization possessing nuclear material* shall submit recommendation on the date from which it would meet the not or partially fulfilled requirements, and shall submit an application for exemption until the recommended date for the individual measures to the *Authority of Nuclear and Radioactive Materials*.

(3) The *Authority of Nuclear and Radioactive Materials* decides on the exemption and its duration, as well as on the confirmation of the first safeguards license. In the course of determination of the duration of exemption

Authority of Nuclear and Radioactive Materials takes account of the severity of deviation from the requirements, as well as of the scope, costs and duration of implementation of the measures necessary to meet the requirements.

Section 39. The decree prescribes provisions necessary to implement the following laws of the European Union:
a) Articles 78 and 81 of the Treaty establishing the European Atomic Energy Community in Rome, on March 25, 1957;
b) Subarticles (1)-(2) of Article 3, and Articles, 4, 5, 6, 7, 16, 19-21, 24, 25, 30 and 32 of 302/2005/Euratom regulation of the European Commission on the application of Euratom safeguards.

Inventory list report

Country: Facility: Material balance area:				Place and date: Page number....., Altogether: Report number..... Signature:					
Serial	KMP	Number or sign of batch	Number of items in one batch	Descriptio n of material	Element	Element weight (g)	Mass of fissile isotopes (only for uranium) (g)	Sign of isotope	Comments
Altogether									P
									U
									Th

Material balance report

Country: Facility: Material balance area:				Reporting period: From To Page number....., Altogether..... page(s) Report number..... Signature:							6			
Serial	Continuation	Name of entry				Accountancy data					Comments	Correction of		
						Element	Element weight	kg/g	Weight of fissile isotopes (only for uranium)	Sign of isotope		Report number	Line number	
													7	
													7	
													7	
													7	
													7	

Advance notification of planned export of nuclear material from Hungary

Place and date:

Hereby we notify you that shipment of nuclear material subject to safeguards is planned from Hungary with the following conditions:

- a) Amount g/kg total weight of elements:
 g fissile isotope(s), if applicable.
- b) Chemical composition:
Physical form:
Enrichment or isotope composition (as appropriate):
- c) Number of items:
- d) Description (type) of containers, including features that would permit sealing:
Shipment identification data:
- e) Receiver country and ultimate destination, where applicable:
- f) Means of transport:
- g) Material balance area and location, where the nuclear material is prepared for shipping, and where its quantity and composition can if possible verified:
- h) Last date when material can be identified and when its quantity and composition can if possible verified:
- i) Approximate dates of shipment:
and of expected arrival at destination:
- j) The location where the receiver country takes over the responsibility:
- k) Expected (approximate) time, when the receiver country takes over the responsibility:

.....
Signature

Note: If separate shipments are prepared to the same country (simultaneously or not), a common advance notification may be prepared on the shipments.

Advance notification of planned import of nuclear material to Hungary

Date and place:

Hereby we notify you that shipment of nuclear material subject to safeguards is planned to Hungary with the following conditions:

- a) Amount g/kg total weight of elements:
g fissile isotope(s), if applicable.
- b) Chemical composition:
Physical form:
Enrichment or isotope composition (as appropriate):
- c) Number of items:
- d) Description (type) of containers:
- e) Shipping country:
- f) Means of transport:
- g) Location and time where and when Hungary takes over the responsibility:
- h) Expected arrival to Hungary:
- i) Location within the material balance area where the material will be unpacked and can be identified, and where its quantity and composition can be verified:
- j) Dates when the materials will be unpacked, and when it can be identified, and where its quantity and composition can be verified:

.....
Signature

Note: If separate shipments from the same country (arriving simultaneously or not) are planned to unpack simultaneously a common advance notification may be prepared on the shipments.

Annex 2 to the Ministerial decree 7/2007. (III. 6.) IRM

Information

Data sheet No.1

Nuclear fuel cycle-related R&D activities not involving nuclear material [according to subparagraph i. of paragraph a) of Article 2 of Additional Protocol]

Number of
declaration:

.....
Date of
declaration:

.....
Declaration
period:

Serial	Reference	Section of fuel cycle	Site	General description

Data sheet No.2

Buildings of the site [according to subparagraph iii. of paragraph a) of Article 2 of Additional Protocol]

Number of
declaration:

.....
Date of
declaration:

.....
Declaration
period:

Serial	Reference	Buildings of the site	Building	General description, its use and content

Activities specified in Annex I of the Additional Protocol [according to subparagraph iv. of paragraph a) of Article 2 of Additional Protocol]

Number of
declaration:

Date of
declaration:

Declaration
period:

Serial	Reference	Category according to Annex 1 of Additional Protocol	Site	Description of scope of activities

Uranium mines and concentration plants and thorium concentration plants [according to subparagraph v. of paragraph a) of Article 2 of Additional Protocol]

Number of
declaration:

Date of
declaration:

Declaration
period:

Serial	Reference	Activity	Operational status	Site	Estimated annual production capacity (amount of uranium and thorium in tons)

Import or export of equipment or nuclear material according to Annex II of Additional Protocol [according to subparagraph ix. of paragraph a) of Article 2 of Additional Protocol]

Number of declaration:

.....
Date of declaration:

.....
Declaration period:

Serial	Reference	Category according to Additional Protocol or to its Annex II.	Name of item	Quantity (piece or weight)	Location of intended use	Date of export or import

Plans for nuclear fuel cycle [according to subparagraph x. of paragraph a) of Article 2 of Additional Protocol]

Number of declaration:

.....
Date of declaration:

.....
Declaration period:

Serial	Reference	Section of fuel cycle	General plans to the development of nuclear fuel cycle	General plans relevant to research and development of nuclear fuel cycle

I.

Decree 7/2007. (III. 6.) IRM	Correlation Table:	EURATOM Treaty 32005R0302
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I.

<i>Community or Union Act:</i>
<i>The Treaty establishing the European Atomic Energy Community</i>
<i>COMMISSION REGULATION 302/2005/EURATOM of 28 February 2005 on the application of Euratom safeguards</i>
<i>Hungarian National Implementing Measure(s):</i>
<i>Acronym/Implementing measure</i>
- Decree 7/2007. (III. 6.) IRM on the rules of accountancy and inspection of nuclear materials as specified in international agreements

EC/EU PROVISIONS	IMPLEMENTING PROVISIONS	NOTES
Treaty on establishment of European Atomic Energy Community	IRM	
Article 78	14. § 16. §	
Article 81	Subarticles (2)-(6) of 33. § Subarticles (2)-(4) of 34. §	
302/2005/Euratom regulation of the Commission (28 February 2005) on application of safeguards provisions of Euratom	IRM	
Article 3 (1)	Subarticle (1) of 14. § Subarticle (1) of 16. §	
Article 3 (2)	Subarticles (1)-(3) of 17. § Appendix 2 Data sheet 2	
Article 3 (3)	Subarticle (2) of 17. §	
Article 4	Subarticle (2) of 14. § Subarticles (1)-(2) of 15. §	
Article 5	Subarticle (2) of 6. § Paragraph <i>d</i>) of Subarticle (1) of 7. §	
Article 6	Subarticle (2) of 6. § Subarticles (1)-(6) of 28. §	
Article 7	Subarticles (1)-(9) of 5. §	
Article 8	Subarticles (1)-(8) of 6. §	
Article 9	Subarticles (3), (5)-(6) of 5. §	
Article 10	Subarticles (1)-(2) of 7. § 8. §	
Article 11	Subarticle (3) of 5. §	
Article 12	Subarticle (8) of 5. §	

	6. § 7. §	
Article 13	Subarticle (8) of 5. § 6. § 7. §	
Article 14	Subarticle (9) of 5. §	
Article 15	Subarticle (9) of 5. § Subarticle (1) of 6. § 25. § 26. §	
Article 16	Subarticle (2) of 28. §	
Article 19	Subarticle (1) of 24. §	
Article 20	9. § Paragraph <i>c</i>) of Subarticle (1) of 28. § Subarticles (6)-(7) of 28. §	
Article 21	10. § 11. § Paragraph <i>c</i>) of Subarticle (1) of 28. § Subarticle (6) of 28. §	
Article 24	19. §	
Article 25	18. §	
Article 30	19. §	
Article 31	21. §	
Article 32	19. §	