

# Information Circular

**INFCIRC/743**

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**General Distribution**

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## Fifth Supply Agreement

### **Agreement for the Transfer of Low Enriched Uranium for a Research Reactor in Romania**

1. The text of the Fifth Supply Agreement among the Government of Romania, the Government of the United States of America and the International Atomic Energy Agency for the Transfer of Low Enriched Uranium for a Research Reactor in Romania is reproduced in this document for the information of all Members of the Agency. The Agency's Board of Governors approved the text of the Agreement on 20 November 2003, which was signed by the authorized representatives of Romania and the United States, and by the Director General of the IAEA, on 24 November 2003.
2. Pursuant to Article V of the Agreement, the Agreement entered into force on 24 November 2003, upon signature by the representatives of Romania, the United States and the Director General of the IAEA.

## **Fifth Supply Agreement**

### **Agreement for the Transfer of Low Enriched Uranium for a Research Reactor in Romania**

WHEREAS the international Atomic Energy Agency (hereinafter called the "Agency") and the Government of Romania (hereinafter called "Romania") on 30 March 1973 signed an Agreement (hereinafter called the "Project Agreement") for assistance by the Agency to Romania in establishing a project consisting of a dual-core TRIGA training and research reactor (hereinafter called the "reactor") at the Institute of Nuclear Technology, (now called the "Institute of Nuclear Research") at Pitesti, Romania, and in securing the special fissionable material necessary therefor;

WHEREAS pursuant to the Supply Agreement concluded on 30 March 1973 between the Agency, Romania and the Government of the United States of America (hereinafter called the "United States"), as amended, supplies of enriched uranium were to be delivered to Romania in connection with the project;

WHEREAS the Agency and Romania on 15 July 1975 concluded the Second Supply Agreement relating to an additional supply of approximately 16 710 grams of uranium enriched to approximately 93 per cent by weight in the isotope uranium-235 (hereinafter called the "93 per cent enriched fuel material") and of approximately 20 grams of uranium enriched to approximately 93 per cent by weight in the isotope uranium-235 (in the Second Supply Agreement called the "indicator material");

WHEREAS the Agency, Romania and the United States on 15 June 1990 concluded an exchange of letters constituting the Third Supply Agreement relating to an additional supply of enriched uranium for the reactor;

WHEREAS the Agency and Romania on 15 June 1990 concluded an exchange of letters constituting an agreement amending the Project Agreement (hereinafter called the "Amending Agreement");

WHEREAS the steady-state core of the dual-core reactor is being converted from use of high-enriched fuel to use of low-enriched fuel;

WHEREAS the Agency, Romania and the United States on 14 June 1991 concluded the Fourth Supply Agreement relating to the supply of approximately 102 000 grams of uranium enriched to less than 20 per cent by weight in the isotope uranium-235 in lieu of the 93 per cent enriched fuel material to be supplied under the Second Supply Agreement;

WHEREAS Romania, in connection with the Project Agreement as amended by the Amending Agreement (hereinafter called the "Project Agreement as amended"), has requested the assistance of the Agency in securing from the United States an additional supply of low-enriched uranium for the reactor;

WHEREAS technical co-operation project ROM/4/024 entitled "Full Conversion of TRIGA 14-MW Core from HEU to LEU Fuel", initially approved by the Board of Governors of the Agency (hereinafter called the "Board") in November 1998, and subsequently in December 2000 and November 2002, is relevant to the present request by Romania;

WHEREAS the Agency's financial contribution to the provision of the assistance requested by Romania will be secured by voluntary contributions made by Romania and the United States to technical co-operation project ROM/4/024;

WHEREAS under the Agreement for Co-operation between the Agency and the United States concluded on 11 May 1959, as amended (hereinafter called the “Co-operation Agreement”), the United States undertook to make available to the Agency pursuant to its Statute certain quantities of special fissionable material, and also undertook, subject to various applicable provisions and licence requirements, to permit, upon request of the Agency, persons under the jurisdiction of the United States to make arrangements to transfer and export materials, equipment or facilities for Members of the Agency in connection with an Agency-assisted project;

WHEREAS pursuant to the terms of the Co-operation Agreement, the Agency and the United States on 14 June 1974 signed a Master Agreement Governing Sales of Source, By-Product and Special Nuclear Materials for Research Purposes (hereinafter called the “Master Agreement”);

WHEREAS the Board on 20 November 2003 approved the assistance requested by Romania for the project; and

WHEREAS the Agency and Romania have made arrangements with a manufacturer (hereinafter called the “Manufacturer”) in the Republic of France (hereinafter called “France”) for the fabrication of the low-enriched uranium into fuel elements for the reactor;

NOW THEREFORE, the Agency, Romania and the United States hereby agree as follows:

## ARTICLE I

Supply of Enriched Uranium

1. The Agency, pursuant to Article IV of the Co-operation Agreement, shall request the United States to permit the transfer and export to Romania of approximately 110 000 grams of uranium enriched to less than 20 per cent by weight in the isotope uranium-235 (hereinafter called the “supplied material”) to be fabricated into fuel elements for the reactor by the Manufacturer.
2. The United States shall ship the supplied material to the Manufacturer in France.
3. The United States, subject to the provisions of the Co-operation Agreement including Section A of the Annex and the Master Agreement and to the issuance of any licences or permits required for the purposes of paragraphs 1 and 2 of this Article, shall transfer to the Agency and the Agency shall transfer to Romania the supplied material.
4. The particular terms and conditions for the transfer of the supplied material, including charges, a schedule of deliveries and shipping instructions (including delivery and shipping to the Manufacturer), shall be specified in a Supplemental Contract to the Master Agreement (hereinafter called the “Supplemental Contract”), to be concluded between the Agency, Romania and the United States in implementation of this Agreement.
5. The supplied material and any special fissionable material produced through its use, including subsequent generations of produced special fissionable material, shall be used exclusively by and remain at the Institute of Nuclear Research, Pitesti, unless the Parties hereto otherwise agree.
6. The supplied material and any special fissionable material produced through its use, including subsequent generations of produced special fissionable material, shall be stored or reprocessed or otherwise altered in form or content only under conditions and in facilities acceptable to the Parties hereto. Such materials shall not be further enriched unless the Parties amend this Agreement for that purpose.
7. Romania and the United States shall take all appropriate measures to ensure the safe transport, handling and use of the supplied material. Romania shall take all measures necessary to ensure the safety and security of the fuel elements containing the supplied material at all times while subject to their jurisdiction or control, including during storage prior to their use in the reactor.

## ARTICLE II

Payment

1. Payment to the Manufacturer of all charges for or connected with the fabrication of the supplied material into fuel elements and delivery thereof to Romania shall be made by the Agency and Romania in accordance with arrangements to be made among the Agency, Romania and the Manufacturer.
2. Except as provided in paragraph 1 of this Article, neither the Agency nor the United States, in extending their assistance for the project, assume any financial responsibility in connection with the transfer of the supplied material to Romania.

### ARTICLE III

#### Obligations, responsibilities and warranties

Except as specified in this Agreement, neither the Agency nor the United States assumes any obligations or responsibilities insofar as the project is concerned. Without limiting the generality of the preceding sentence, neither the Agency nor the United States warrants the suitability or fitness of the supplied material for any particular use or application or shall at any time bear any responsibility towards Romania or any person for any claims arising out of the transport, handling and use of the supplied material.

### ARTICLE IV

#### Amendment of the Project Agreement as amended

1. Section 3 of the Project Agreement as amended is hereby amended to include the supplied material transferred pursuant to this Agreement, under the definition of supplied material in Section 3 of the Project Agreement as amended.
2. The Agency and Romania hereby agree that Annex B to the Project Agreement as amended is deleted and replaced by Annex B attached to this Agreement.

### ARTICLE V

#### Entry into Force

This Agreement shall enter into force upon signature by or for the Director General of the Agency and by the authorized representatives of Romania and the United States.

DONE in Vienna, in triplicate in the English language.

For the INTERNATIONAL ATOMIC ENERGY AGENCY:

(signed)

Mohamed ElBaradei  
Director General

For the GOVERNMENT OF ROMANIA:

(signed)

Liviu Aurelian Bota  
Permanent Representative of Romania to the IAEA

For the GOVERNMENT OF THE UNITED STATES OF AMERICA:

(signed)

Kenneth C. Brill  
Permanent Representative of the United States to the IAEA

## ANNEX B

### SAFETY STANDARDS AND MEASURES

1. The safety standards and measures applicable to the project shall be those defined in Agency document INFCIRC/18/Rev.1 (hereinafter called the "Safety Document") or in any further revision thereof and as specified below.
2. Romania shall, *inter alia*, apply the International Basic Safety Standards for Protection Against Ionizing Radiation and for the Safety of Radiation Sources (IAEA Safety Series No. 115 Edition 1996), jointly sponsored by IAEA, FAO, WHO, ILO, OECD/NEA and PAHO and the relevant provisions of the Agency's Regulations for the Safe Transport of Radioactive Materials (TS-R-1/2000) as they may be revised from time to time, and as far as possible Romania shall apply them also to any shipment of the supplied material outside the jurisdiction of Romania. Romania shall, *inter alia*, ensure safety conditions as recommended in the Code on the Safety of Nuclear Research Reactors: Design (IAEA Safety Series No. 35-S1, 1992 Edition) and the Code on the Safety of Nuclear Research Reactors: Operation (IAEA Safety Series No. 35-S2, 1992 Edition) and other relevant IAEA Safety Standards.
3. Romania shall arrange for the submission to the Agency, at least thirty (30) days prior to the proposed transfer of any part of the supplied material to the jurisdiction of Romania, of a detailed safety analysis report containing the information specified in paragraph 4.7 of the Safety Document and as recommended in the relevant sections of the Agency's Guides on the Safety Assessment of Research Reactors and Preparation of the Safety Analysis Report (Safety Series No. 35-G1, 1994 Edition) and the Safety in the Utilization and Modification of Research Reactors (Safety Series No. 35-G2, 1994 Edition), including particular reference to the following types of operations, to the extent that the relevant information is not yet available to the Agency:
  - (a) Receipt and handling of the supplied material;
  - (b) Loading of the supplied material into the reactor;
  - (c) Start-up and pre-operational testing of the reactor with the supplied material;
  - (d) Experimental program and procedures involving the reactor;
  - (e) Unloading of the supplied material from the reactor; and
  - (f) Handling and storage of the supplied material after unloading from the reactor.
4. Once the Agency has determined that the safety measures provided for the project are adequate, the Agency shall give its consent for the start of the proposed operations. Should Romania desire to make substantial modifications to the procedures with respect to which information has been submitted, or to perform any operations with the reactor or the supplied material with respect to which operations no information has been submitted, Romania shall submit to the Agency all relevant information as specified in paragraph 4.7 of the Safety Document, on the basis of which the Agency may require the application of additional safety measures in accordance with paragraph 4.8 of the Safety Document. Once Romania has undertaken to apply the additional safety measures requested by the Agency, the Agency shall give its consent for the modifications or operations envisaged by Romania.
5. Romania shall arrange for submission to the Agency, as appropriate, of the reports specified in paragraphs 4.9 and 4.10 of the Safety Document.
6. The Agency may, in agreement with Romania, send safety missions for the purpose of providing advice and assistance to Romania in connection with the application of adequate safety measures to the project, in accordance with paragraphs 5.1 and 5.3 of the Safety Document. Moreover, special safety missions may be arranged by the Agency in the circumstances specified in paragraph 5.2 of the Safety Document.

7. Changes in the safety standards and measures laid down in this Annex may be made by mutual consent between the Agency and Romania in accordance with paragraphs 6.2 and 6.3 of the Safety Document.