

No. 10767

**FINLAND
and
UNITED STATES OF AMERICA**

Agreement for co-operation concerning civil uses of atomic energy (with appendix). Signed at Washington on 8 April 1970

Authentic texts: Finnish and English.

Registered by Finland on 23 September 1970.

**FINLANDE
et
ÉTATS-UNIS D'AMÉRIQUE**

Accord de coopération concernant l'utilisation de l'énergie atomique à des fins civiles (avec appendice). Signé à Washington le 8 avril 1970

Textes authentiques: finnois et anglais.

Enregistré par la Finlande le 23 septembre 1970.

AGREEMENT¹ FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE REPUBLIC OF FINLAND CONCERNING CIVIL USES OF ATOMIC ENERGY

Whereas the Government of the United States of America and the Government of the Republic of Finland desire to cooperate in the peaceful and humanitarian uses of atomic energy, including the design, construction, and operation of power-producing reactors and research reactors, and the exchange of information relating to the development of other peaceful uses of atomic energy; and

Whereas the Government of the United States of America and the Government of the Republic of Finland are desirous of entering into this Agreement to attain the above objectives; and

Whereas the Government of the United States of America and the Government of the Republic of Finland have ratified the Treaty on the Non-Proliferation of Nuclear Weapons signed on July 1, 1968;²

The Parties agree as follows :

Article I

For the purposes of this Agreement :

1) "Parties" means the Government of the United States of America, including the Commission on behalf of the Government of the United States of America, and the Government of the Republic of Finland, including the Ministry of Commerce and Industry or other authorized governmental agency on behalf of the Government of the Republic of Finland. "Party" means one of the above "Parties".

2) "Commission" means the United States Atomic Energy Commission.

3) "Atomic weapon" means any device utilizing atomic energy, exclusive of the means for transporting or propelling the device (where such means is a separable and divisible part of the device), the principal purpose of which is for use as, or for development of, a weapon, a weapon prototype, or a weapon test device.

¹ Came into force on 7 July 1970, the date on which each Government had received from the other Government written notification that it had complied with all statutory and constitutional requirements, in accordance with article XIII.

² United Nations, *Treaty Series*, vol. 729, No. I-10485.

4) “Byproduct material” means any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.

5) “Equipment and devices” and “equipment or devices” mean any instrument, apparatus, or facility, and include any facility, except an atomic weapon, capable of making use of or producing special nuclear material, and component parts thereof.

6) “Person” means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, government agency, or government corporation but does not include the Parties to this Agreement.

7) “Reactor” means an apparatus, other than an atomic weapon, in which a self-supporting fission chain reaction is maintained by utilizing uranium, plutonium, or thorium, or any combination of uranium, plutonium, or thorium.

8) “Restricted Data” means all data concerning 1) design, manufacture, or utilization of atomic weapons, 2) the production of special nuclear material, or 3) the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the category of Restricted Data by the appropriate authority.

9) “Safeguards” means a system of controls designed to assure that any materials, equipment and devices committed to the peaceful use of atomic energy are not used to further any military purpose.

10) “Source material” means 1) uranium, thorium, or any other material which is determined by the Commission or the Government of the Republic of Finland to be source material, or 2) ores containing one or more of the foregoing materials, in such concentration as the Commission or the Government of the Republic of Finland may determine from time to time.

11) “Special nuclear material” means 1) plutonium, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission or the Government of the Republic of Finland determines to be special nuclear material, or 2) any material artificially enriched by any of the foregoing.

Article II

A. Subject to the provision of this Agreement, the availability of personnel and material, the applicable laws, regulations, and license requirements in force in their respective countries, and their respective policies concerning the application of international safeguards, the Parties shall cooperate with each other in the achievement of the uses of atomic energy for peaceful purposes.

B. Restricted Data shall not be communicated under this Agreement, and no materials or equipment and devices shall be transferred, and no services shall be furnished, under this Agreement, if the transfer of any such materials or equipment and devices or the furnishing of any such services involves the communication of Restricted Data.

C. This Agreement shall not require the exchange of any information which the Parties are not permitted to communicate.

Article III

Subject to the provisions of Article II, the Parties agree to exchange unclassified information with respect to the application of atomic energy to peaceful uses and the problems of health and safety connected therewith. The exchange of information provided for in this Article may be accomplished through various means, including reports, conferences, and visits to facilities, and shall include information in the following fields :

- 1) Development, design, construction, operation, and use of research, materials testing, experimental, demonstration power, and power reactors, and reactor experiments;
- 2) The use of radioactive isotopes and source material, special nuclear material, and byproduct material in physical and biological research, medicine, agriculture, and industry; and
- 3) Health and safety problems related to the foregoing.

Article IV

A. Materials of interest in connection with the subjects of agreed exchange of information, as provided in Article III and subject to the provisions of Article II, including source material, heavy water, byproduct material, other radioisotopes, stable isotopes, and special nuclear material for purposes other than fueling reactors and reactor experiments, may be transferred between the Parties for defined applications in such quantities and under such terms and conditions as may be agreed when such materials are not commercially available.

B. Subject to the provisions of Article II and under such terms and conditions as may be agreed, specialized research facilities and reactor materials testing facilities of the Parties may be made available for mutual use consistent with the limits of space, facilities, and personnel conveniently available when such facilities are not commercially available.

C. With respect to the subjects of agreed exchange of information as provided in Article III and subject to the provisions of Article II, equipment and devices may be transferred from one Party to the other under such terms and

conditions as may be agreed. It is recognized that such transfers will be subject to limitations which may arise from shortages of supplies or other circumstances existing at the time.

Article V

The application or use of any information (including design drawings and specifications), and any material, equipment and devices, exchanged or transferred between the Parties under this Agreement shall be the responsibility of the Party receiving it, and the other Party does not warrant the accuracy or completeness of such information and does not warrant the suitability of such information, material, equipment and devices for any particular use or application.

Article VI

A. With respect to the application of atomic energy to peaceful uses, it is understood that arrangements may be made between either Party or authorized persons under its jurisdiction and authorized persons under the jurisdiction of the other Party for the transfer of equipment and devices and materials other than special nuclear material and for the performance of services with respect thereto.

B. With respect to the application of atomic energy to peaceful uses, it is understood that arrangements may be made between either Party or authorized persons under its jurisdiction and authorized persons under the jurisdiction of the other Party for the transfer of special nuclear material and for the performance of services with respect thereto for the uses specified in Articles IV and VII and subject to the relevant provisions of Article VIII and to the provisions of Article IX.

C. The Parties agree that the activities referred to in paragraphs A and B of this Article shall be subject to the provisions of Article II and to the contracting policies of the Parties with regard to transactions involving the authorized persons referred to in paragraphs A and B of this Article.

Article VII

A. During the period of this Agreement, and as set forth below, the Commission will supply to the Government of the Republic of Finland or, pursuant to Article VI, to authorized persons under its jurisdiction, under such terms and conditions as may be agreed, requirements of the Republic of Finland for uranium enriched in the isotope U-235 for use as fuel in the power reactor program described in the Appendix to this Agreement, which Appendix, subject to the quantity limitation established in Article IX, may be amended from time to time by mutual consent of the Parties without modification of this Agreement.

- 1) The Commission will supply such uranium enriched in the isotope U-235 by providing, to the same extent as for United States licensees, for the production or enrichment, or both, of uranium enriched in the isotope U-235 for the account of the Government of the Republic of Finland or such authorized persons. (Upon timely advice that any natural uranium required with respect to any particular delivery of enriched uranium under such service arrangements is not reasonably available to the Government of the Republic of Finland or such authorized persons, the Commission will be prepared to furnish the required natural uranium on terms and conditions to be agreed.)
- 2) Notwithstanding the provisions of paragraph A 1) of this Article, if the Government of the Republic of Finland or such authorized persons so request, the Commission, at its election, may sell the uranium enriched in the isotope U-235 under such terms and conditions as may be agreed.

B. As may be agreed, the Commission will transfer to the Government of the Republic of Finland or to authorized persons under its jurisdiction uranium enriched in the isotope U-235 for use as fuel in defined research applications, including research, materials testing, and experimental reactors and reactor experiments. The terms and conditions of each transfer shall be agreed upon in advance, it being understood that, in the event of transfer of title to uranium enriched in the isotope U-235, the Commission shall have the option of limiting the arrangements to undertakings such as those described in paragraph A 1) of this Article.

C. The Commission may also transfer to the Government of the Republic of Finland or to authorized persons under its jurisdiction, under such terms and conditions with respect to each transfer as may be agreed, special nuclear material for the performance in the Republic of Finland of conversion or fabrication services, or both, and for subsequent transfer to another nation or group of nations in accordance with the provisions of Article X, paragraph A 3. It is understood that, in the event of transfer of title to uranium enriched in the isotope U-235 by the Commission, it shall have the option of limiting the arrangements to undertakings such as those described in paragraph A 1) of this Article.

Article VIII

A. With respect to transfers by the Commission of uranium enriched in the isotope U-235 provided for in Article VI, paragraph B and Article VII, it is understood that :

- 1) Contracts specifying quantities, enrichments, delivery schedules, and other terms and conditions of supply or service will be concluded on a timely basis between the Commission and the Government of the Republic of Finland or persons authorized by it,

2) Prices for uranium enriched in the isotope U-235 sold or charges for enrichment services performed will be those in effect for users in the United States of America at the time of delivery. The advance notice required for delivery will be that in effect for users in the United States of America at the time of giving such notice. The Commission may agree to supply uranium enriched in the isotope U-235 or perform enrichment services upon shorter notice, subject to assessment of such surcharge to the usual base price or charge as the Commission may consider reasonable to cover abnormal costs incurred by the Commission by reason of such shorter notice.

B. If the total quantity of uranium enriched in the isotope U-235 which the Commission has agreed to provide pursuant to this Agreement and other Agreements for Cooperation should reach the maximum quantity of uranium enriched in the isotope U-235 which the Commission has available for such purposes, and should contracts covering the adjusted net quantity specified in Article IX not have been concluded, the Commission may request, upon appropriate notice, that the Government of the Republic of Finland or persons authorized by it conclude contracts for all or any part of such uranium enriched in the isotope U-235 as is not then under contract. It is understood that, should contracts not be concluded in accordance with a request by the Commission hereunder, the Commission shall be relieved of all obligations with respect to the uranium enriched in the isotope U-235 for which contracts have been so requested.

C. The enriched uranium supplied hereunder may contain up to twenty percent (20%) in the isotope U-235. A portion of the uranium enriched in the isotope U-235 supplied hereunder may be made available as material containing more than twenty percent (20%) in the isotope U-235 when the Parties agree that there is a technical or economic justification for such a transfer.

D. It is understood, unless otherwise agreed, that, in order to assure the availability of the entire quantity of uranium enriched in the isotope U-235 allocated hereunder for a particular reactor project described in the Appendix, it will be necessary for the construction of the project to be initiated in accordance with the schedule set forth in the Appendix and for the Government of the Republic of Finland or persons authorized by it to conclude a contract for that quantity in time to allow for the Commission to provide the material for the first fuel loading. It is also understood that, if the Government of the Republic of Finland or persons authorized by it desire to contract for less than the entire quantity of uranium enriched in the isotope U-235 allocated for a particular project or terminate the supply contract, the remaining quantity allocated for that project shall cease to be available and the maximum adjusted net quantity of U-235 provided for in Article IX shall be reduced accordingly, unless otherwise agreed.

E. Within the limitations contained in Article IX, the quantity of uranium enriched in the isotope U-235 transferred under Article VI, paragraph B or

Article VII and under the jurisdiction of the Government of the Republic of Finland for the fueling of reactors or reactor experiments shall not at any time be in excess of the quantity necessary for the loading of such reactors or reactor experiments, plus such additional quantity as, in the opinion of the Parties, is necessary for the efficient and continuous operation of such reactors or reactor experiments.

F. When any special nuclear material received from the United States of America requires reprocessing, or any irradiated fuel elements containing fuel material received from the United States of America are to be removed from a reactor and are to be altered in form or content, such reprocessing or alteration may be performed in Finnish facilities upon a joint determination of the Parties that safeguards pursuant to this Agreement may be effectively applied, or in such other facilities as may be mutually agreed.

G. Special nuclear material produced as a result of irradiation processes in any part of the fuel leased by the Commission under this Agreement shall be for the account of the lessee and, after reprocessing as provided in paragraph F of this Article, title to such material shall be in the lessee unless the Commission and the lessee otherwise agree.

H. No special nuclear material produced through the use of material transferred to the Government of the Republic of Finland or to authorized persons under its jurisdiction pursuant to this Agreement will be transferred to any other nation or group of nations, except as the Commission may agree to such a transfer.

I. Some atomic energy materials which the Commission may be requested to provide in accordance with this Agreement are harmful to persons and property unless handled and used carefully. After delivery of such materials, the Government of the Republic of Finland shall bear all responsibility, insofar as the Government of the United States of America is concerned, for the safe handling and use of such materials. With respect to any source material or special nuclear material or reactor materials which the Commission may lease pursuant to this Agreement to the Government of the Republic of Finland or to any person under its jurisdiction, the Government of the Republic of Finland shall indemnify and save harmless the Government of the United States of America against any and all liability (including third party liability) for any cause whatsoever arising out of the production or fabrication, the ownership, the lease, and the possession and use of such source material or special nuclear material or reactor materials after delivery by the Commission to the Government of the Republic of Finland or to any person under its jurisdiction.

Article IX

The adjusted net quantity of U-235 in enriched uranium transferred from the United States of America to the Republic of Finland under Articles IV, VI

and VII during the period of this Agreement for Cooperation shall not exceed in the aggregate twenty-five thousand two hundred (25 200) kilograms. The following method of computation shall be used in calculating transfers, within the ceiling quantity of twenty-five thousand two hundred (25 200) kilograms of U-235, made under the said Articles :

From :

- 1) The quantity of U-235 contained in enriched uranium transferred under the said Articles, *minus*
- 2) The quantity of U-235 contained in an equal quantity of uranium of normal isotopic assay,

Subtract :

- 3) The aggregate of the quantities of U-235 contained in recoverable uranium of United States origin either returned to the United States of America or transferred to any other nation or group of nations with the approval of the Government of the United States of America pursuant to this Agreement, *minus*
- 4) The quantity of U-235 contained in an equal quantity of uranium of normal isotopic assay.

Article X

A. The Government of the Republic of Finland guarantees that :

- 1) Safeguards provided in Article XII shall be maintained.
- 2) No material, including equipment and devices, transferred to the Government of the Republic of Finland or authorized persons under its jurisdiction by purchase or otherwise pursuant to this Agreement, and no special nuclear material produced through the use of such material, equipment or devices, will be used for atomic weapons, or for research on or development of atomic weapons, or for any other military purpose.
- 3) No material, including equipment and devices, transferred to the Government of the Republic of Finland or to authorized persons under its jurisdiction pursuant to this Agreement will be transferred to unauthorized persons or beyond the jurisdiction of the Government of the Republic of Finland except as the Commission may agree to such a transfer to another nation or group of nations, and then only if, in the opinion of the Commission, the transfer of the material is within the scope of an Agreement for Cooperation between the Government of the United States of America and the other nation or group of nations.

B. The Government of the United States of America guarantees that :

- 1) No material, including equipment and devices, transferred to the Government of the United States of America or authorized persons under its jurisdiction

by purchase or otherwise pursuant to this Agreement, and no special nuclear material produced through the use of such material, including equipment and devices, or an equivalent amount of material of the same type as such transferred or produced material substituted therefor, will be used for atomic weapons, or for research on or development of atomic weapons, or for any other military purpose.

- 2) No material, including equipment and devices, transferred to the Government of the United States of America or authorized persons under its jurisdiction pursuant to this Agreement, and no special nuclear material produced through the use of such material, equipment or devices, will be transferred to unauthorized persons or beyond the jurisdiction of the Government of the United States of America, except as the Government of the Republic of Finland may agree to such a transfer to another nation or group of nations.

Article XI

A. The Government of the United States of America and the Government of the Republic of Finland, recognizing the desirability of making use of the facilities and services of the International Atomic Energy Agency, agree that the Agency will be promptly requested to assume responsibility for applying safeguards to materials and facilities subject to safeguards under this Agreement. It is contemplated that the necessary arrangements will be effected without modification of this Agreement through an agreement to be negotiated among the Parties and the Agency which may include provisions for suspension of the safeguards rights accorded to the Government of the United States of America by Article XII of this Agreement, during the time and to the extent that the Agency's safeguards apply to such materials and facilities.

B. If the Government of the Republic of Finland, before such time as the provisions of paragraph A above have been implemented, has at its request, in the spirit of the Treaty on the Non-Proliferation of Nuclear Weapons, entered into an agreement in accordance with Article III, paragraph A 5 of the Statute of the International Atomic Energy Agency¹ whereby the Agency's safeguard system for the time being in force is applied or is to be applied to the Republic of Finland's activities in the field of atomic energy the Government of the United States of America undertakes to consult as to the extent that the provisions of such agreement between the Government of the Republic of Finland and the Agency may be accepted as satisfying the objectives of paragraph A of this Article.

C. In the event the Parties do not reach a mutually satisfactory agreement on the terms of an arrangement as envisaged by paragraphs A or B of this Article, either

¹ United Nations, *Treaty Series*, vol. 276, p. 3.

Party may, by notification, terminate this Agreement. Before either Party takes steps to terminate this Agreement, the Parties will carefully consider the economic effects of any such termination. Neither Party will invoke its termination right until the other Party has been given sufficient advance notice to permit arrangements by the Government of the Republic of Finland, if it is the other Party, for an alternative source of power and to permit adjustment by the Government of the United States of America, if it is the other Party, of production schedules. In the event of termination by either Party, the Government of the Republic of Finland shall, at the request of the Government of the United States of America, return to the Government of the United States of America all special nuclear material received pursuant to this Agreement and still in its possession or in the possession of persons under its jurisdiction. The Government of the United States of America will compensate the Government of the Republic of Finland or the persons under its jurisdiction for their interest in such material so returned at the Commission's schedule of prices then in effect in the United States of America.

Article XII

A. The Government of the United States of America and the Government of the Republic of Finland emphasize their common interest in assuring that any material, equipment or devices made available to the Government of the Republic of Finland or any person under its jurisdiction pursuant to this Agreement shall be used solely for civil purposes.

B. Except to the extent that the safeguards rights provided for in this Agreement are suspended by virtue of the application of safeguards of the International Atomic Energy Agency, as provided in Article XI, the Government of the United States of America, notwithstanding any other provisions of this Agreement, shall have the following rights :

- 1) With the objective of assuring design and operation for civil purposes and permitting effective application of safeguards, to review the design of any
 - a) reactor, and
 - b) other equipment and devices the design of which the Commission determines to be relevant to the effective application of safeguards, which are to be made available under this Agreement to the Government of the Republic of Finland or to any person under its jurisdiction by the Government of the United States of America or any person under its jurisdiction, or which are to use, fabricate, or process any of the following materials so made available : source material, special nuclear material, moderator material, or other material designated by the Commission;
- 2) With respect to any source material or special nuclear material made available to the Government of the Republic of Finland or to any person under its

jurisdiction under this Agreement by the Government of the United States of America or any person under its jurisdiction and any source material or special nuclear material utilized in, recovered from, or produced as a result of the use of any of the following materials, equipment or devices so made available :

- a) source material, special nuclear material, moderator material, or other material designated by the Commission,
- b) reactors, and
- c) any other equipment or devices designated by the Commission as an item to be made available on the condition that the provisions of this paragraph B 2) will apply,
 - i) to require the maintenance and production of operating records and to request and receive reports for the purpose of assisting in ensuring accountability for such materials; and
 - ii) to require that any such materials in the custody of the Government of the Republic of Finland or any person under its jurisdiction be subject to all of the safeguards provided for in this Article and the guarantees set forth in Article X;
- 3) to approve facilities which are to be used for the storage of any of the special nuclear material referred to in paragraph B 2) of this Article which is not required for atomic energy programs in the Republic of Finland and which is not transferred beyond the jurisdiction of the Government of the Republic of Finland or otherwise disposed of pursuant to an arrangement mutually acceptable to the Parties;
- 4) To designate, after consultation with the Government of the Republic of Finland, personnel who, accompanied, if either Party so requests, by personnel designated by the Government of the Republic of Finland, shall have access in the Republic of Finland to all places and data necessary to account for the source material and special nuclear material which are subject to paragraph B 2) of this Article to determine whether there is compliance with this Agreement and to make such independent measurements as may be deemed necessary;
- 5) In the event of non-compliance with the provisions of this Article or the guarantees set forth in Article X and the failure of the Government of the Republic of Finland to carry out the provisions of this Article within a reasonable time, to suspend or terminate this Agreement and to require the return of any materials, equipment and devices referred to in paragraph B 2) of this Article;
- 6) To consult with the Government of the Republic of Finland in the matter of health and safety.

C. The Government of the Republic of Finland undertakes to facilitate the application of safeguards provided for in this Article.

Article XIII

This Agreement shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Agreement and shall remain in force for a period of thirty (30) years.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Agreement.

DONE at Washington, in duplicate, in the English and Finnish languages, both equally authentic, this eighth day of April, 1970.

For the Government of the United States of America :

Martin HILLEBRAND
Glenn SEABORG

For the Government of the Republic of Finland :

Olavi MUNKKI

APPENDIX

FINLAND'S ENRICHED URANIUM POWER REACTOR PROGRAM

(1) Reactors	(2) Scheduled start of construction	(3) Criticality date	(4) Total KGS. U-235 required
A. 750 MWe	1972	1978	13 000
B. 750 MWe	1974	1980	12 000
			TOTAL : 25 000