

No. 12986

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**UNITED STATES OF AMERICA  
and  
REPUBLIC OF KOREA**

**Agreement for cooperation concerning civil uses of atomic energy (with appendix). Signed at Washington on 24 November 1972**

*Authentic texts: English and Korean.*

*Registered by the United States of America on 23 January 1974.*

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**ÉTATS-UNIS D'AMÉRIQUE  
et  
RÉPUBLIQUE DE CORÉE**

**Accord de coopération concernant l'utilisation de l'énergie atomique dans le domaine civil (avec appendice). Signé à Washington le 24 novembre 1972**

*Textes authentiques : anglais et coréen.*

*Enregistré par les États-Unis d'Amérique le 23 janvier 1974.*

## AGREEMENT<sup>1</sup> FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE REPUBLIC OF KOREA CONCERNING CIVIL USES OF ATOMIC ENERGY

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WHEREAS the Government of the United States of America and the Government of the Republic of Korea signed an “Agreement for cooperation between the Government of the United States of America and the Government of the Republic of Korea concerning civil uses of atomic energy” on February 3, 1956,<sup>2</sup> which was amended by the Agreements signed on March 14, 1958,<sup>3</sup> and July 30, 1965;<sup>4</sup> and

WHEREAS the Government of the United States of America and the Government of the Republic of Korea desire to pursue a research and development program looking toward the realization of 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 Korea are desirous of entering into this Agreement to cooperate with each other to attain the above objectives; and

WHEREAS the Parties desire this Agreement to supersede the “Agreement for cooperation between the Government of the United States of America and the Government of the Republic of Korea concerning civil uses of atomic energy” signed on February 3, 1956, as amended;

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 Korea. “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.

(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.

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<sup>1</sup> Came into force on 19 March 1973, the date on which each Government received from the other Government written notification that it had complied with all statutory and constitutional requirements, in accordance with article XV.

<sup>2</sup> United Nations, *Treaty Series*, vol. 240, p. 129.

<sup>3</sup> *Ibid.*, vol. 316, p. 358.

<sup>4</sup> *Ibid.*, vol. 578, p. 268.

(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 (a) design, manufacture, or utilization of atomic weapons, (b) the production of special nuclear material, or (c) 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 uses of atomic energy are not used to further any military purpose.

(10) "Source material" means (a) uranium, thorium, or any other material which is determined by either Party to be source material, or (b) ores containing one or more of the foregoing materials, in such concentration as either Party may determine from time to time.

(11) "Special nuclear material" means (a) plutonium, uranium enriched in the isotope 233 or in the isotope 235, and any other material which either Party determines to be special nuclear material, or (b) any material artificially enriched by any of the foregoing.

(12) "Superseded Agreement" means the Agreement for cooperation between the Government of the United States of America and the Government of the Republic of Korea signed by the Parties on February 3, 1956, as amended by the Agreements signed on March 14, 1958, and July 30, 1965.

*Article II.* A. Subject to the provisions of this Agreement, the availability of personnel and material, and the applicable laws, regulations, and license requirements in force in their respective countries, 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 will exchange unclassified information with respect to the application of atomic energy to peaceful uses and the considerations of health and safety connected therewith. The exchange of information provided for in this article will be accomplished through various means, including reports, conferences, and visits to facilities, and will 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 considerations 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 or the superseded 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 limitations in article II and to the 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 Korea or, pursuant to article VI, to authorized persons under its jurisdiction, under such terms and conditions as may be agreed, all of the requirements of the Republic of Korea 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 Korea 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 Korea or any 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 Korea 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 Korea 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. It is understood that the Commission may transfer to a person or persons under the jurisdiction of the Government of the United States of America such of its responsibilities under this Agreement with respect to the supply of special nuclear material, including the provision of enrichment services, as the Commission deems desirable.

*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 executed on a timely basis between the Commission and the Government of the Republic of Korea or persons authorized by it, and
- (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. Should 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 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 executed, the Commission may request, upon appropriate notice, that the Government of the Republic of Korea or persons authorized by it execute 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 executed 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 Commission finds 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 Korea or persons authorized by it to execute a contract for that quantity in time to allow the Commission to provide the material for the first fuel loading. It is also understood that, if the Government of the Republic of Korea or persons authorized by it desires to contract for less than the entire quantity of uranium enriched in the isotope U-235 allocated for a particular project or terminates the supply contract after execution, 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 Korea 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 pursuant to this Agreement or the superseded Agreement requires reprocessing, or any irradiated fuel elements containing fuel material received from the United States of America pursuant to this Agreement or the superseded Agreement are to be removed from a reactor and are to be altered in form or content, such reprocessing or alteration shall be performed in facilities acceptable to both Parties upon a joint determination of the Parties that the provisions of article XI may be effectively applied.

G. Special nuclear material produced as a result of irradiation processes in any part of the fuel that may be leased by the Commission under this Agreement or the superseded Agreement shall be for the account of the lessee and, after reprocessing as provided in paragraph F of this article, title to such produced 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 Korea or to authorized persons under its jurisdiction, pursuant to this Agreement or the superseded Agreement, will be transferred to the jurisdiction of 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, or which have been provided under the superseded Agreement, are harmful to persons and property unless handled and used carefully. After delivery of such materials, the Government of the Republic of Korea 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 special nuclear material or fuel elements which the Commission may, pursuant to this Agreement, lease to the Government of the Republic of Korea or to any person under its jurisdiction, or may have leased pursuant to the superseded

Agreement, the Government of the Republic of Korea 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 special nuclear material or fuel elements after delivery by the Commission to the Government of the Republic of Korea 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 Korea under articles IV, VI, and VII during the period of this Agreement for Cooperation or under the superseded Agreement shall not exceed in the aggregate twelve thousand nine hundred (12,900) kilograms. The following method of computation shall be used in calculating transfers, within such ceiling quantity, made under the said articles or the superseded Agreement:

From:

- (1) The quantity of U-235 contained in enriched uranium transferred under the said articles or the superseded Agreement, 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 or the superseded Agreement, minus
- (4) The quantity of U-235 contained in an equal quantity of uranium of normal isotopic assay.

*Article X.* The Government of the Republic of Korea guarantees that:

- (1) Safeguards provided in article XI shall be maintained.
- (2) No material, including equipment and devices, transferred to the Government of the Republic of Korea or authorized persons under its jurisdiction by purchase or otherwise pursuant to this Agreement or the superseded 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 Korea or authorized persons under its jurisdiction pursuant to this Agreement or the superseded Agreement will be transferred to unauthorized persons or beyond the jurisdiction of the Government of the Republic of Korea except as the Commission may agree to such a transfer to the jurisdiction of another nation or group of nations, and then only if, in the opinion of the Commission, the transfer 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.

*Article XI.* A. The Government of the United States of America and the Government of the Republic of Korea emphasize their common interest in assuring that any material, equipment or devices made available to the Government of the Republic of Korea or any person under its jurisdiction pursuant to this Agreement or the superseded 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 XII, 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, or have been, made available to the Government of the Republic of Korea or to any person under its jurisdiction under this Agreement or the superseded Agreement 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 Korea or to any person under its jurisdiction under this Agreement or the superseded 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 material in the custody of the Government of the Republic of Korea 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 require the deposit in storage facilities designated by the Commission of any of the special nuclear material referred to in paragraph B(2) of this article which is not currently utilized for civil purposes in the Republic of Korea and which is not transferred pursuant to article VIII 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 Korea, personnel who, accompanied, if either Party so requests, by personnel designated by the Government of the Republic of Korea, shall have access in the Republic of Korea 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 Korea 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 material, equipment and devices referred to in paragraph B(2) of this article;

- (6) To consult with the Government of the Republic of Korea in the matter of health and safety.

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

*Article XII.* A. The Government of the United States of America and the Government of the Republic of Korea note that, by an agreement signed by them and the International Atomic Energy Agency on January 5, 1968,<sup>1</sup> the Agency has been applying safeguards to materials, equipment and facilities transferred to the jurisdiction of the Government of the Republic of Korea under the superseded Agreement. The Parties, recognizing the desirability of continuing to make use of the facilities and services of the International Atomic Energy Agency, agree that Agency safeguards shall continue to apply to materials, equipment and facilities transferred under the superseded Agreement or to be transferred under this Agreement.

B. The continued application of Agency safeguards pursuant to this article will be accomplished either as provided in the above-mentioned trilateral agreement among the Parties and the Agency, as it may be amended from time to time or supplanted by a new trilateral agreement, or as provided in an agreement which may be entered into between the Government of the Republic of Korea and the International Atomic Energy Agency pursuant to article III of the Treaty on the Non-Proliferation of Nuclear Weapons.<sup>2</sup> It is understood that, without modification of this Agreement, the safeguards rights accorded to the Government of the United States of America by article XI of this Agreement will be suspended during the time and to the extent that the Government of the United States of America agrees that the need to exercise such rights is satisfied by a safeguards agreement as contemplated in this paragraph.

C. In the event the applicable safeguards agreement referred to in paragraph B of this article should be terminated prior to the expiration of this Agreement and the Parties should fail to agree promptly upon a resumption of Agency safeguards, either Party may, by notification, terminate this Agreement. In the event of such termination by either Party, the Government of the Republic of Korea 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 or the superseded 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 Korea 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 XIII.* The rights and obligations of the Parties provided for under this Agreement shall extend, to the extent applicable, to cooperative activities initiated under the superseded Agreement, including, but not limited to, information, materials, equipment and devices transferred thereunder.

*Article XIV.* The "Agreement for cooperation between the Government of the United States of America and the Government of the Republic of Korea concerning civil uses of atomic energy" signed on February 3, 1956, as amended, is superseded by this Agreement on the date this Agreement enters into force.

<sup>1</sup> United Nations, *Treaty Series*, vol. 637, p. 123.

<sup>2</sup> *Ibid.*, vol. 729, p. 161.

*Article XV.* 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 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 Korean languages, both equally authentic, this twenty-fourth day of November, 1972.

For the Government  
of the United States of America:

[Signed — Signé]<sup>1</sup>

[Signed — Signé]<sup>2</sup>

For the Government  
of the Republic of Korea:

[Signed — Signé]<sup>3</sup>

#### APPENDIX

##### KOREAN ENRICHED URANIUM REACTOR PROGRAM

(1)	(2)	(3)	(4)
<i>Reactor</i>	<i>Start of Construction</i>	<i>Criticality Date</i>	<i>Total Kgs. U-235 Required</i>
Ko-Ri (600 MWe, PWR) . . . . .	1970	1975	12,700

<sup>1</sup> Signed by Marshall Green — Signé par Marshall Green.

<sup>2</sup> Signed by James R. Schlesinger — Signé par James R. Schlesinger.

<sup>3</sup> Signed by Dong-Jo Kim — Signé par Dong-Jo Kim.