

**No. 19634**

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**AUSTRALIA  
and  
REPUBLIC OF KOREA**

**Agreement concerning co-operation in peaceful uses of  
nuclear energy and the transfer of nuclear material  
(with annex and related letter). Signed at Canberra on  
2 May 1979**

*Authentic texts: English and Korean.*

*Registered by Australia on 11 March 1981.*

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**AUSTRALIE  
et  
RÉPUBLIQUE DE CORÉE**

**Accord de coopération pour l'utilisation pacifique de  
l'énergie nucléaire et le transfert de matières nucléaires  
(avec annexe et lettre connexe). Signé à Canberra le  
2 mai 1979**

*Textes authentiques : anglais et coréen.*

*Enregistré par l'Australie le 11 mars 1981.*

## AGREEMENT<sup>1</sup> BETWEEN THE GOVERNMENT OF AUSTRALIA AND THE GOVERNMENT OF THE REPUBLIC OF KOREA CONCERNING COOPERATION IN PEACEFUL USES OF NUCLEAR ENERGY AND THE TRANSFER OF NUCLEAR MATERIAL

The Government of Australia and the Government of the Republic of Korea,

Confirming the desire of both countries to cooperate in the development and application of nuclear energy for peaceful purposes;

Desiring to establish conditions under which nuclear material can be transferred between their two countries for peaceful purposes, consistent with their commitment to non-proliferation;

Mindful that both Australia and the Republic of Korea are non-nuclear-weapon States which are Parties to the Treaty on the non-proliferation of nuclear weapons;<sup>2</sup>

Affirming their support for the objectives of the Treaty on the non-proliferation of nuclear weapons, notably those stated in articles III and IV, and their desire to promote universal adherence to that Treaty;

Recognising that the Republic of Korea and Australia have, under that Treaty, undertaken not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices;

Recognising also that the Republic of Korea and Australia have agreements in force with the International Atomic Energy Agency for the application of safeguards in their respective countries in connection with the Treaty on the non-proliferation of nuclear weapons;

Pending international acceptance of new international arrangements and institutions to provide more effective measures against the proliferation of nuclear weapons;

Have agreed as follows:

*Article I.* The Parties will cooperate in the peaceful uses of nuclear energy, including transfer of nuclear materials, research and development, exchange of unclassified information, technical training, visits by scientists and projects of mutual interest, as may be agreed between them. This cooperation will be facilitated as may be necessary by specific agreements.

*Article II.* 1. This Agreement shall apply to:

- (a) All nuclear material transferred for peaceful purposes between the two Parties, whether directly or through third countries;
- (b) Quantities of derived nuclear material proportional to the transferred nuclear material used for their production; and
- (c) Quantities of all subsequent generations of nuclear material determined on the same proportional principle.

<sup>1</sup> Came into force on 2 May 1979 by signature, in accordance with article XIV.

<sup>2</sup> United Nations, *Treaty Series*, vol. 729, p. 161.

*Article III.* Nuclear material referred to in article II of this Agreement shall remain subject to the provisions of this Agreement until:

- (a) It is no longer usable for any nuclear activity relevant from the point of view of the safeguards referred to in article V of this Agreement; that is, until it shall be determined by the International Atomic Energy Agency that the material is no longer so usable as a result of its being
  - (i) Practicably irrecoverable,
  - (ii) Consumed,
  - (iii) Diluted, or
  - (iv) Converted to non-nuclear use, such as the production of alloys or ceramics;
- (b) It has been transferred beyond the jurisdiction of the recipient Party in accordance with the provisions of article VIII of this Agreement; or
- (c) Otherwise agreed between the Parties.

*Article IV.* Nuclear material subject to this Agreement shall not be diverted to the development or the manufacture of nuclear weapons or other nuclear explosive devices, or be used in such a way as to further any military purpose.

*Article V.* 1. Nuclear material subject to this Agreement shall be subject while within the territory or under the jurisdiction or control of the recipient Party to safeguards applied by the International Atomic Energy Agency under a Non-Proliferation Treaty safeguards agreement.

2. If nuclear material subject to this Agreement is present in the territory of a Party and the International Atomic Energy Agency is not administering safeguards in the territory of that Party pursuant to a Non-Proliferation Treaty safeguards agreement, that Party shall accept safeguards under an agreement or agreements to which it and the International Atomic Energy Agency are parties and which will provide safeguards equivalent in scope and effect to those provided by a Non-Proliferation Treaty safeguards agreement.

*Article VI.* Notwithstanding the provisions of article V of this Agreement, if nuclear material subject to this Agreement is present in the territory of a Party and the International Atomic Energy Agency is not administering safeguards in the territory of that Party pursuant to a safeguards agreement or agreements referred to in article V of this Agreement, the other Party shall have the right to administer in the territory of that Party safeguards based on the procedures of the Agency's safeguards system for the exclusive purpose of verifying that nuclear material subject to this Agreement is not diverted to nuclear weapons or other nuclear explosive devices or used for any military purpose. The two Parties shall consult and assist each other to establish and apply such safeguards.

*Article VII.* 1. The Parties agree to take such measures as are necessary to ensure adequate physical protection of nuclear material within their jurisdiction and to apply, as a minimum, physical protection measures which satisfy the levels of physical protection set out in annex A to this Agreement.

2. The Parties shall consult at the request of either Party concerning matters relating to physical protection.

*Article VIII.* 1. Nuclear material subject to this Agreement shall be:

- (a) Transferred beyond the territorial jurisdiction of the recipient Party;

(b) Enriched to more than 20% in the isotope  $U^{235}$ ; or

(c) Reprocessed;

only with the prior written consent of the supplier Party.

2. In considering a request for consent in relation to the matters referred to in paragraph 1 of this article, the supplier Party will take into account non-proliferation considerations, energy requirements and the needs of the recipient Party for proper management of spent nuclear fuel and for nuclear waste disposal. A Party shall not withhold its consent to a matter referred to in paragraph 1 of this article for the purpose of securing commercial advantage.

3. If a Party considers that it is unable to grant consent to a matter referred to in paragraph 1 of this article, that Party shall provide the other Party with an immediate opportunity for full consultation on that issue.

*Article IX.* 1. The appropriate governmental authorities of both Parties shall consult annually, or at any other time at the request of either Party, to ensure the effective implementation of this Agreement. Either Party may invite the International Atomic Energy Agency to participate in such consultations.

2. If nuclear material subject to this Agreement is present in the territory of a Party, that Party shall, upon request, inform the other Party in writing of the overall conclusions of the most recent report by the International Atomic Energy Agency on its verification activities in the territory of the requested Party relevant to the material subject to this Agreement.

3. The appropriate governmental authorities of both Parties shall establish an administrative arrangement to ensure the effective fulfilment of the obligations under this Agreement. An administrative arrangement established pursuant to this paragraph may be changed with the agreement of the appropriate governmental authorities of both Parties.

4. The administrative arrangement referred to in paragraph 3 of this article shall also include the mechanism for financing the cost of reports and records which either Party shall be providing.

5. The Parties shall take all appropriate precautions to preserve the confidentiality of commercial and industrial secrets and other confidential information received as a result of the operation of this Agreement.

*Article X.* 1. A supplier Party shall have the right in the event of:

(a) Detonation by the recipient Party of a nuclear explosive device, or

(b) Determination in accordance with paragraph C of article XII of the Statute of the International Atomic Energy Agency that there has been non-compliance with, or abrogation of, a relevant safeguards agreement concluded with the International Atomic Energy Agency by the recipient party.

to suspend or cancel further transfers of nuclear material and to require the return of nuclear material subject to this Agreement, subject to payment therefor at prices then current.

2. In the event of material non-compliance by the recipient Party with the provisions of articles IV to VIII inclusive of this Agreement, the Parties shall forthwith consult at the request of either Party. The supplier Party shall have the right to suspend further transfers of nuclear material and to require the recipient Party to take corrective steps. If such corrective steps are not taken within a reasonable

time, the supplier Party shall thereupon have the right to cancel further transfers of nuclear material and to require the return of nuclear material subject to this Agreement, subject to payment therefor at prices then current.

*Article XI.* Any dispute arising out of the interpretation or application of this Agreement which is not settled by negotiation shall, on request of either Party, be submitted to an arbitral tribunal which shall be composed of three arbitrators. Each Party shall designate one arbitrator and the two arbitrators so designated shall elect a third, a national of a third State, who shall be the Chairman. If, within 30 days of the request for arbitration, either Party has not designated an arbitrator, either Party to the dispute may request the President of the International Court of Justice to appoint an arbitrator. The same procedure shall apply if, within 30 days of the designation or appointment of the second arbitrator, the third arbitrator has not been elected. A majority of the members of the arbitral tribunal shall constitute a quorum and all decisions shall be made by majority vote of all the members of the arbitral tribunal. The arbitral procedure shall be fixed by the tribunal. The decisions of the tribunal, including all rulings concerning its constitution, procedure, jurisdiction and the division of the expenses of arbitration between the Parties shall be binding on both Parties and shall be implemented by them in accordance with their respective constitutional procedures.

*Article XII.* For the purposes of this Agreement:

(a) "Appropriate governmental authority" means, in the case of the Republic of Korea, the Atomic Energy Bureau of the Ministry of Science and Technology and, in the case of Australia, the Australian Safeguards Office, or such other authority as the Party concerned may from time to time notify to the other Party;

(b) "Derived nuclear material" means nuclear material in any form derived from nuclear material in another form by physical or chemical processes which do not involve nuclear change;

(c) "Military purpose" means direct military applications such as nuclear weapons, military nuclear propulsion, military nuclear rocket engines or military nuclear reactors but does not include indirect uses such as power for a military base drawn from a civil power network, or production of radioisotopes which might later be used for diagnosis in a military hospital;

(d) "Non-Proliferation Treaty safeguards agreement" means an agreement concluded in accordance with paragraph 1 of article III of the Treaty on non-proliferation of nuclear weapons, the structure and content of which is set out in International Atomic Energy Agency document INFCIRC/153;

(e) "Nuclear material" means any "source material" or "special fissionable material" defined as in article XX of the Statute of the International Atomic Energy Agency<sup>1</sup> as follows:

"1. The term 'special fissionable material' means plutonium-239; uranium-233; uranium enriched in the isotopes 235 or 233; any material containing one or more of the foregoing and such other fissionable material as the Board of Governors shall from time to time determine; but the term 'special fissionable material' does not include source material.

"2. The term 'uranium enriched in the isotopes 235 or 233' means uranium containing the isotopes 235 or 233 or both in an amount such that

<sup>1</sup> United Nations, *Treaty Series*, vol. 276, p. 3, and vol. 471, p. 334.

the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature.

“3. The term ‘source material’ means 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; any other material containing one or more of the foregoing in such concentration as the Board of Governors shall from time to time determine; and such other material as the Board of Governors shall from time to time determine”.

Any determination by the Board of Governors of the International Atomic Energy Agency under article XX of the Statute of the International Atomic Energy Agency which amends the list of materials considered to be “source material” or “special fissionable material” shall only have effect under this Agreement when both Parties to this Agreement have informed each other in writing that they accept that amendment;

(f) “Parties” means the Government of the Republic of Korea and the Government of Australia;

(g) “Peaceful purposes” means all uses other than use for a military purpose;

(h) “Proportional principle” means the use of direct mathematical proportion in allocating to supplier origin quantities of derived nuclear material or subsequent generations of nuclear material from a product; the allocation is made in the same ratio as the ratio that the amount of supplier origin nuclear material used in the production of this product bore to the total amount of nuclear material so used;

(i) “Subsequent generations of nuclear material” means nuclear material produced from nuclear material as a result of nuclear change;

(j) “The Agency’s safeguards system” means the safeguards system set out in International Atomic Energy Agency document INFCIRC/66 (Rev. 2) as well as any subsequent amendments thereto which are accepted by the Government of the Republic of Korea and by the Government of Australia.

*Article XIII.* 1. Either Party may at any time propose amendments to this Agreement. Amendment of the Agreement shall be effected by agreement between the Parties through an exchange of notes.

2. The Parties shall meet from time to time as appropriate, at the request of either Party, to review the operation of this Agreement.

*Article XIV.* This Agreement shall enter into force on the date of signature and shall remain in force indefinitely unless it is otherwise agreed between the Parties.

IN WITNESS WHEREOF, the undersigned, being duly authorised by their respective Governments, have signed this Agreement.

DONE at Canberra this second day of May 1979, in duplicate in the Korean and English languages, both texts being equally authentic.

[Signed — Signé]<sup>1</sup>  
For the Government  
of Australia

[Signed — Signé]<sup>2</sup>  
For the Government  
of the Republic of Korea

<sup>1</sup> Signed by J. D. Anthony — Signé par J. D. Anthony.

<sup>2</sup> Signed by Han Lim Lee — Signé par Han Lim Lee.

## ANNEX A

## AGREED LEVELS OF PHYSICAL PROTECTION

The agreed levels of physical protection to be ensured by the appropriate governmental authorities in the use, storage and transportation of the materials of the attached table shall as a minimum include protection characteristics as follows:

*Category III:*

- Use and storage within an area to which access is controlled.
- Transportation under special precautions including prior arrangement between sender, recipient and carrier, and prior agreement between States in case of international transport specifying time, place and procedures for transferring transport responsibility.

*Category II:*

- Use and storage within a protected area to which access is controlled, i.e., an area under constant surveillance by guards or electronic devices, surrounded by a physical barrier with a limited number of points of entry under appropriate control, or any area with an equivalent level of physical protection.
- Transportation under special precautions including prior arrangement between sender, recipient and carrier, and prior agreement between States in case of international transport specifying time, place and procedures for transferring transport responsibility.

*Category I:*

Materials in this category shall be protected with highly reliable systems against unauthorized use as follows:

- Use and storage within a highly protected area, i.e. a protected area as defined for category II above, to which, in addition, access is restricted to persons whose trustworthiness has been determined and which is under surveillance by guards who are in close communication with appropriate response forces. Specific measures taken in this context should have as their objective the detection and prevention of any assault, unauthorized access or unauthorized removal of material.
- Transportation under special precautions as identified above for transportation of category II and III materials and, in addition, under constant surveillance of escorts and under conditions which assure close communication with appropriate response forces.

## CATEGORIZATION OF NUCLEAR MATERIAL

Material	Form	Category		
		I	II	III
1. Plutonium <sup>(a)</sup>	Unirradiated <sup>(b)</sup>	2 kg or more	Less than 2 kg but more than 500 g	500 g or less <sup>(c)</sup>
2. Uranium-235	Unirradiated <sup>(b)</sup>			
	—Uranium enriched to 20% U- <sup>235</sup> or more	5 kg or more	Less than 5 kg but more than 1 kg	1 kg or less <sup>(c)</sup>
	—Uranium enriched to 10% U- <sup>235</sup> but less than 20%	—	10 kg or more	Less than 10 kg <sup>(c)</sup>
	—Uranium enriched above natural, but less than 10% U- <sup>235(d)</sup>	—	—	10 kg or more

Material	Form	Category		
		I	II	III
3. Uranium-233	Unirradiated <sup>(b)</sup>	2 kg or more	Less than 2 kg but more than 500 g	500 g or less <sup>(c)</sup>
4. Irradiated fuel		<sup>(e)</sup>	<sup>(c)</sup>	Depleted or natural uranium, thorium or low enriched fuel (less than 10% fissile content) <sup>(a)</sup>

<sup>(a)</sup> All plutonium except that with isotopic concentration exceeding 80% in plutonium-238.

<sup>(b)</sup> Material not irradiated in a reactor or material irradiated in a reactor but with a radiation level equal to or less than 100 rads/hour at one metre unshielded.

<sup>(c)</sup> Less than a radiologically significant quantity should be exempted.

<sup>(d)</sup> Natural uranium, depleted uranium and thorium and quantities of uranium enriched to less than 10% not falling in category III should be protected in accordance with prudent management practice.

<sup>(e)</sup> Other fuel which by virtue of its original fissile material content is classified as category I or II before irradiation may be reduced one category level when the radiation level from the fuel exceeds 100 rads/hour at one metre unshielded.

## RELATED LETTER

Dear Director-General Kang,

In the negotiations between the Republic of Korea and Australia on the Agreement concerning co-operation in peaceful uses of nuclear energy and the transfer of nuclear material signed today, the aim of the two delegations was to draw up an agreement consistent with the commitment of the two countries to the non-proliferation of nuclear weapons under which nuclear material may be transferred between them for peaceful purposes, as well as enhancing development of cooperation in the peaceful uses of nuclear energy.

In this context, the Korean delegation sought clarification of Australian intentions as to how the Agreement would be implemented, and the following understandings, which shall be an integral part of the Agreement, were reached.

Australia recognises the interest of the Republic of Korea in the economic, safe and efficient conduct of its nuclear activities for peaceful purposes. It is Australia's intention that the Agreement should be implemented in such a manner as to avoid undue interference, practical difficulties or delays unrelated to non-proliferation objectives in the peaceful nuclear activities of the Republic of Korea.

## Retransfers

Australia understands that the Republic of Korea may wish to have processes involved in the preparation of fuel elements, including conversion, enrichment of uranium to less than 20 per cent in the isotope U<sup>235</sup> and fuel fabrication, carried out in other countries. Australia recognises that these are normal fuel cycle activities and that the Republic of Korea may wish to retransfer nuclear material subject to the Agreement for these purposes.



Where such countries have a safeguards agreement with Australia, in relation to which agreement Australia has not found it necessary to interrupt supply, consent will normally be forthcoming and on a general and long term basis. Any safeguardable material left in that country would have to be covered by the safeguards agreement with Australia.

Where these other countries do not have such a safeguards agreement with Australia, the Australian Government would need to be satisfied that, after processing, quantities of nuclear fuel equivalent to the material supplied by Australia and safeguardable by-products will be returned to the Republic of Korea or be left in or sent to a country which has a safeguards agreement with Australia, in relation to which agreement Australia has not found it necessary to interrupt supply, and to which the said nuclear fuel and by-products would be subject.

With reference to retransfer of nuclear material by the Republic of Korea for use, storage, or final disposal in a third country, Australia will not withhold its agreement, save in exceptional cases, provided that country has a safeguards agreement with Australia, in relation to which agreement Australia has not found it necessary to interrupt supply, and to which the retransferred nuclear material would be subject.

Australia understands that the Republic of Korea may wish to have nuclear material subject to the Agreement reprocessed in a third country. Australian policy does not preclude giving consent for this in advance and for a period of years subject to specific arrangements and/or conditions. Reprocessing, however, is a matter on which the Australian Government has reserved its position for the time being. The Australian Government does not propose to decide on the detailed arrangements and/or conditions under which it might agree to reprocessing taking place until after the conclusion of current international studies, notably the International Nuclear Fuel Cycle Evaluation (INFCE).

Australia accordingly agrees to hold further consultations with the Republic of Korea at a mutually convenient time after the conclusion of the INFCE study, on the detailed arrangements and/or conditions under which it might agree to reprocessing and on the possibility of giving its consent in advance and for a period of time under specific arrangements.

#### *Multiple labelling*

The Korean delegation raised the question of how the requirement for prior consent under article VIII of the Agreement would be implemented in cases where the Republic of Korea was also required to obtain consent to a retransfer, high enrichment or reprocessing of the same nuclear material from third countries.

Should administrative problems be encountered in the administration of such overlapping controls, Australia will be glad to consult with the Republic of Korea and to explore, as appropriate, with other supplier countries means of simplifying as much as possible the procedures involved.

The Australian delegation referred to the Interim Agreement between Australia and the United States concluded on 8 August 1978 which provides a procedure which could be used to deal with such cases. Under this Interim Agreement, the United States, in such cases, could in effect act as Australia's agent, seeking Australia's approval before giving its own. The Australian delegation noted that this would simplify the administration of the prior consent requirements

under article VIII of the Agreement where nuclear material of Australian origin has a United States "label".

#### *Uranium supply*

Australia attaches fundamental importance to being a secure and reliable supplier of uranium to other countries for the peaceful uses of nuclear energy. Australia shares the Republic of Korea's interest in stable and timely supplies of nuclear material from Australia under the Agreement for the orderly and efficient operation of the Republic of Korea's nuclear energy program, in the spirit of articles III and IV of the Treaty on the non-proliferation of nuclear weapons. Australia will endeavour to take such actions as may be practicable, within the framework of its law and policies, to achieve these ends.

#### *Non-compliance provisions*

In regard to paragraph 2 of article X, it is the intention of Australia that, in exercising its rights as a supplier party, it would take into account the desirability of prior consultations and of allowing, where appropriate, reasonable time for corrective steps.

#### *Physical protection of nuclear material*

In relation to article VII of the Agreement, the delegations noted that work is proceeding under the auspices of the International Atomic Energy Agency on the negotiation of an international convention on physical protection of nuclear material. The delegations noted that it was their Governments' policy to lend support to the development of an international convention in this area. It was the understanding of the two delegations that, should this result in a convention which adequately met the physical protection requirements of article VII, it would be possible, by agreement between the Parties, to suspend the application of that article in respect of a party for which the convention was in force.

#### *Fallback safeguards*

The Parties acknowledge that safeguards procedures applied by the International Atomic Energy Agency consistently with the provisions of paragraphs 1 and 2 of article V shall be sufficient for the verification of the provisions of article IV in regard to non-diversion of nuclear material.

In relation to article V of the Agreement, the Korean delegation sought clarification of the requirement for an agreement or agreements which will provide safeguards equivalent in scope and effect to those provided by a Non-Proliferation Treaty safeguards agreement. The Australian delegation noted that one way in which this requirement could be satisfied would be the application of the Agency's safeguards system under agreements which, taken together, cover all nuclear material in peaceful use within the jurisdiction of the country concerned and which provide the same degree of reassurance that material is not diverted to non-peaceful purposes including nuclear weapons or other nuclear explosive devices.

#### *Administrative arrangement*

With regard to paragraph 3 of article IX, it is the intention of the Parties that the administrative arrangement should minimise the administrative workload additional to that required by the International Atomic Energy Agency safeguards system. For example, labelling of and accounting for nuclear materials on the

proportional principle, or communications in connection with nuclear material transfers, will, to the extent possible, use the same type of documents as are required by the International Atomic Energy Agency for its safeguards operations.

Yours sincerely,

J. R. KELSO  
Leader of the Australian Delegation

Honourable Director-General Suk Jae Kang  
Leader of the Delegation  
of the Republic of Korea  
Ministry of Foreign Affairs  
Seoul

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