

No. 24577

**CHINA
and
JAPAN**

Agreement for co-operation in the peaceful uses of nuclear energy (with annexes and agreed minutes). Signed at Tokyo on 31 July 1985

*Authentic texts: Chinese, Japanese and English.
Registered by China on 4 December 1986.*

**CHINE
et
JAPON**

Accord relatif à la coopération dans le domaine de l'utilisation pacifique de l'énergie nucléaire (avec annexes et procès-verbal approuvé). Signé à Tokyo le 31 juillet 1985

*Textes authentiques : chinois, japonais et anglais.
Enregistré par la Chine le 4 décembre 1986.*

AGREEMENT BETWEEN THE GOVERNMENT OF THE PEOPLE'S
REPUBLIC OF CHINA AND THE GOVERNMENT OF JAPAN
FOR COOPERATION IN THE PEACEFUL USES OF NUCLEAR
ENERGY

The Government of the People's Republic of China and the Government of Japan,

Desiring to promote cooperation between the two countries in the peaceful uses of nuclear energy,

Have agreed as follows:

Article I. For the purposes of this Agreement:

(a) "Contracting Parties" means the Government of the People's Republic of China and the Government of Japan;

(b) "Authorized persons" means natural or juristic persons and other bodies excluding the Government of the People's Republic of China and the Government of Japan under the jurisdiction of either Contracting Party and authorized by that Contracting Party to supply or receive, nuclear material, material, equipment and facilities, or to perform or receive consultancy or other services;

(c) "Equipment" means items of machinery, plant or instrumentation, or major components thereof, which are specially designed or manufactured for use in nuclear activities, and which are specified in Part A of Annex B of this Agreement;

(d) "Material" means material for reactors, which is specified in Part B of Annex B of this Agreement, but does not include nuclear material;

(e) "Nuclear material" means (i) "source material", namely, 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 substance containing one or more of the foregoing in such concentration as may be accepted in writing by both Contracting Parties; and such other substance as may be accepted in writing by both Contracting Parties; and (ii) "special fissionable material", namely, plutonium-239; uranium-233; uranium-235; uranium enriched in the isotopes 233 or 235; any substance containing one or more of the foregoing; and such other substance as may be accepted in writing by both Contracting Parties. The term "special fissionable material" shall not include "source material";

(f) "Facilities" means all buildings or structures, specially designed or built for use in nuclear activities;

(g) "Special fissionable material recovered or produced as a by-product" means special fissionable material derived by one or more processes from the use of any nuclear material, material, equipment or facilities supplied pursuant to this Agreement.

¹ Came into force on 10 July 1986, the date on which the Parties notified each other of the completion of the required internal procedures, in accordance with article X (1).

Article II. Subject to the provisions of this Agreement, and the applicable laws, regulations and license requirements in force in their respective countries, the Contracting Parties shall cooperate in the peaceful uses of nuclear energy in the two countries in the following ways:

(a) The Contracting Parties shall encourage cooperation between respective organizations within their jurisdictions by exchanges of experts. When execution of an agreement or contract pursuant to this Agreement between Chinese and Japanese organizations requires such exchanges of experts, the Contracting Parties shall facilitate the entry of such experts to their respective territories and their stay therein.

(b) The Contracting Parties shall facilitate exchange of information on such terms as may be agreed between the supplier and the recipient.

(c) Either Contracting Party or its authorized persons may supply to or receive from the other Contracting Party or its authorized persons nuclear material, material, equipment and facilities on such terms as may be agreed between the supplier and the recipient.

(d) Either Contracting Party or its authorized persons may perform consultancy or other services for or receive consultancy or other services from the other Contracting Party or its authorized persons on matters within the scope of this Agreement on such terms as may be agreed between the supplier and the recipient.

(e) Other ways as deemed appropriate by the Contracting Parties.

Article III. The cooperation mentioned in Article II of this Agreement may be carried out in the following fields:

(a) Study on and application of radio-isotopes and radiation;

(b) Exploration and exploitation of uranium resources;

(c) Design, construction and operation of light water reactors and heavy water reactors;

(d) Safety problems of light water reactors and heavy water reactors;

(e) Radioactive waste processing and disposal;

(f) Radiation protection and environmental monitoring; and

(g) Other fields as may be agreed between the Contracting Parties.

Article IV. 1. The cooperation pursuant to this Agreement shall be carried out only for peaceful purposes.

2. Nuclear material, material, equipment and facilities received pursuant to this Agreement and special fissionable material recovered or produced as a by-product shall not be used for the development or the manufacture of any nuclear explosive device, or for any military purpose.

3. In order to ensure compliance with the provisions of paragraph 2 of this Article, the Contracting Parties shall, according to their respective different cases, request the International Atomic Energy Agency to apply safeguards within their respective jurisdictions with respect to nuclear material, material, equipment and facilities received pursuant to this Agreement and special fissionable material recovered or produced as a by-product.

Article V. Nuclear material, material, equipment and facilities received pursuant to this Agreement and special fissionable material recovered or produced as a by-product shall not be transferred beyond the jurisdiction of a Contracting Party without the prior written consent of the other Contracting Party.

Article VI. 1. The Contracting Parties shall apply appropriate measures of physical protection along the lines of the guidelines set out in Annex A of this Agreement to nuclear material received pursuant to this Agreement and special fissionable material recovered or produced as a by-product within their respective jurisdictions.

2. Material, equipment and facilities received pursuant to this Agreement shall, as necessary, be protected under the relevant laws and regulations in force in the respective countries.

Article VII. 1. With a view to promoting cooperation under this Agreement, the Contracting Parties may, at the request of either of them, review progress and results of cooperation under this Agreement and discuss matters of mutual concern.

2. If any question arises out of the interpretation or implementation of this Agreement, the Contracting Parties shall, at the request of either of them, consult with each other.

3. Should such a question fail to be resolved through consultations referred to in paragraph 2 of this Article, or other means agreed to by the Contracting Parties, the Contracting Parties may submit the matter to conciliation procedures.

Article VIII. In the event of non-compliance with the provisions of Articles IV, V or VI of this Agreement by either Contracting Party, the Contracting Parties shall, at the request of the other Contracting Party, forthwith consult with each other and take appropriate measures which will ensure compliance with the provisions of Articles IV, V or VI of this Agreement.

Article IX. The Annexes of this Agreement form an integral part of this Agreement. The Annexes may be amended by mutual consent in writing of the Contracting Parties without modification of this Agreement.

Article X. 1. This Agreement shall enter into force on the date on which diplomatic notes confirming the completion of internal legal procedures necessary in each country for entry into force of this Agreement have been exchanged, and shall remain in force for a period of fifteen years. The Agreement shall automatically be extended for five year periods thereafter unless either Contracting Party notifies the other Contracting Party in writing to terminate the Agreement at least six months before each expiration date.

2. Notwithstanding the termination of this Agreement, the provisions of Articles I, IV, V, VI, VII and VIII of this Agreement shall continue in effect as long as nuclear material, material, equipment and facilities received pursuant to this Agreement and special fissionable material recovered or produced as a by-product remain under the jurisdiction of the Contracting Party concerned or until otherwise agreed between the Contracting Parties.

3. The Contracting Parties shall, at the request of either of them, consult with each other whether to modify this Agreement, and may agree to the modification.

Such modification shall enter into force on the date of mutual notifications of the completion of internal legal procedures necessary in each country for its entry into force.

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

DONE at Tokyo on the thirty-first day of July, 1985, in duplicate in the Chinese, Japanese and English languages, all three texts being equally authentic. In case of any divergence of interpretations, the English text shall prevail.

For the Government
of the People's Republic of China:

[Signed — Signé]¹

For the Government
of Japan:

[Signed — Signé]²

ANNEX A

GUIDELINES FOR 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 nuclear material as categorized in the attached table shall as a minimum include protection characteristics as follows:

1. *Category III*

- (a) Use and Storage within an area to which access is controlled.
- (b) Transportation under special precautions including prior arrangements among sender, recipient and carrier, and prior agreement between entities subject to the jurisdiction and regulation of supplier and recipient states, respectively, in case of international transport specifying time, place and procedures for transferring transport responsibility.

2. *Category II*

- (a) 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.
- (b) Transportation under special precautions including prior arrangements among sender, recipient and carrier, and prior agreement between entities subject to the jurisdiction and regulation of supplier and recipient states, respectively, in case of international transport specifying time, place and procedures for transferring transport responsibility.

¹ Signed by Wu Xueqian — Signé par Wu Xueqian.

² Signed by Abeshintaro — Signé par Abeshintaro.

3. *Category I*

Nuclear material in this Category shall be protected with highly reliable systems against unauthorized use as follows:

- (a) 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 authorities. Specific measures taken in this context should have as their objective the detection and prevention of any assault, unauthorized access or unauthorized removal of the nuclear material concerned.
- (b) Transportation under special precautions as identified above for transportation of Category II and III nuclear material and, in addition, under constant surveillance by escorts and under conditions which assure close communication with appropriate response authorities.

TABLE: CATEGORIZATION OF NUCLEAR MATERIAL

<i>Nuclear Material</i>	<i>Form</i>	<i>Category I</i>	<i>Category II</i>	<i>Category III</i>
1. Plutonium ^a	Unirradiated ^b	2 kg or more	Less than 2 kg but more than 500 g	500 g or less ^c
2. Uranium-235	Unirradiated ^b			
	— Uranium enriched to 20% ²³⁵ U or more	5 kg or more	Less than 5 kg but more than 1 kg	1 kg or less ^c
	— Uranium enriched to 10% ²³⁵ U but less than 20%		10 kg or more	Less than 10 kg ^c
	— Uranium enriched above natural, but less than 10% ²³⁵ U ^d			10 kg or more
3. Uranium-233	Unirradiated ^b	2 kg or more	Less than 2 kg but more than 500 g	500 g or less ^c
4. Irradiated fuel			Depleted or natural uranium, thorium or low-enriched fuel (less than 10% fissile content) ^{e, f}	

^a Plutonium with an isotopic concentration of plutonium-238 exceeding 80% shall not be included.

^b Nuclear material not irradiated in a reactor or nuclear material irradiated in a reactor but with a radiation level equal to or less than 100 rads/hour at one meter unshielded.

^c Less than a radiologically significant quantity should be exempted.

^d 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.

^e Although this level of protection is recommended, it would be open to a Contracting Party, upon evaluation of the specific circumstances, to assign a different category of physical protection.

^f Other fuel which by virtue of its original fissile content is classified as Category I or II before irradiation may be reduced one category level while the radiation level from the fuel exceeds 100 rads/hour at one meter unshielded.

ANNEX B

PART A

1. *Nuclear reactors*: Nuclear reactors capable of operation so as to maintain a controlled self-sustaining fission chain reaction, excluding zero energy reactors, the latter being defined as reactors with a designed maximum rate of production of plutonium not exceeding 100 grams per year.

It is not intended to exclude reactors which could reasonably be capable of modification to produce significantly more than 100 grams of plutonium per year. Reactors designed for sustained operation at significant power levels, regardless of their capacity for plutonium production, are not considered as "zero energy reactors".

2. *Reactor pressure vessels*: Metal vessels, as complete units or as major shop-fabricated parts therefor, which are especially designed or prepared to contain the core of a nuclear reactor as defined in paragraph 1 above and are capable of withstanding the operating pressure of the primary coolant.

3. *Reactor internals*.

4. *Reactor fuel charging and discharging machines*: Manipulative equipment especially designed or prepared for inserting or removing fuel in a nuclear reactor as defined in paragraph 1 above capable of on-load operation or employing technically sophisticated positioning or alignment features to allow complex off-load fueling operations such those in which direct viewing of or access to the fuel is not normally available.

5. *Reactor control rods*: Rods especially designed or prepared for the control of the reaction rate in a nuclear reactor as defined in paragraph 1 above.

6. *Reactor pressure tubes*: Tubes which are especially designed or prepared to contain fuel elements and the primary coolant in a reactor as defined in paragraph 1 above at an operating pressure in excess of 50 atmospheres.

7. *Zirconium tubes*: Zirconium metal and alloys in the form of tubes or assemblies of tubes especially designed or prepared for use in a reactor as defined in paragraph 1 above, and in which the relationship of hafnium to zirconium is less than 1:500 parts by weight.

PART B

8. *Deuterium and heavy water*:

Deuterium and any deuterium compound in which the ratio of deuterium to hydrogen exceeds 1:5000 for use in a nuclear reactor as defined in paragraph 1 above.

9. *Nuclear grade graphite*:

Graphite having a purity level better than 5 parts per million boron equivalent and with a density greater than 1.50 grams per cubic centimeter.

AGREED MINUTES

In connection with the Agreement between the Government of the People's Republic of China and the Government of Japan for Cooperation in the Peaceful Uses of Nuclear Energy which was signed today (hereinafter referred to as "the Agreement"), the undersigned hereby record the following understandings:

1. With reference to sub-paragraph (c) of Article II of the Agreement, it is confirmed that the supplying Contracting Party shall notify the receiving

Contracting Party in writing of each transfer of nuclear material, material, equipment and facilities prior to shipment.

2. With reference to cooperation envisaged under sub-paragraph (g) of Article III of the Agreement, it is confirmed that separate arrangements between the Contracting Parties shall be required in any event in respect of cooperation in the field of technology for and transfer of equipment and facilities for enrichment, reprocessing and heavy water production, or transfer of plutonium.

3. With reference to paragraph 3 of Article IV of the Agreement, the Government of the People's Republic of China confirms that in the event of becoming a receiving Contracting Party, it will, on the basis of a voluntary submission, enter into a relevant agreement with the International Atomic Energy Agency as soon as possible for the application of safeguards by the International Atomic Energy Agency with respect to nuclear material, material, equipment and facilities received pursuant to the Agreement and special fissionable material recovered or produced as a by-product.

It is confirmed by the Contracting Parties that with regard to Japan, the Agreement between the Government of Japan and the International Atomic Energy Agency in Implementation of Paragraphs 1 and 4 of Article III of the Treaty on the Non-Proliferation of Nuclear Weapons, signed on March 4, 1977,¹ fulfills the requirement set forth in paragraph 3 of Article IV of the Agreement.

4. It is confirmed by the Contracting Parties that the maintenance of safeguards as required by paragraph 3 of Article IV of the Agreement is a condition for the cooperation provided for in sub-paragraph (c) of Article II of the Agreement. If the safeguards referred to in paragraph 3 of Article IV of the Agreement are not applied by the International Atomic Energy Agency within the jurisdiction of either Contracting Party, the Contracting Parties shall, at the request of either Contracting Party, forthwith consult with each other and make mutually acceptable arrangements which will ensure compliance with the provisions of paragraph 2 of Article IV of the Agreement.

For the Government
of the People's Republic of China:

[Signed — Signé]²

For the Government
of Japan:

[Signed — Signé]³

¹ United Nations, *Treaty Series*, vol. 1112, p. 3.

² Signed by Wu Xueqian — Signé par Wu Xueqian.

³ Signed by Abeshintaro — Signé par Abeshintaro.