

**No. 21531**

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**FRANCE  
and  
EGYPT**

**Agreement on co-operation in the peaceful uses of nuclear energy (with annexes and related letter). Signed at Paris on 27 March 1981**

*Authentic texts: French and Arabic.*

*Registered by France on 18 January 1983.*

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**FRANCE  
et  
ÉGYPTE**

**Accord de coopération relatif aux utilisations pacifiques de l'énergie nucléaire (avec annexes et lettre connexe). Signé à Paris le 27 mars 1981**

*Textes authentiques : français et arabe.*

*Enregistré par la France le 18 janvier 1983.*

## [TRANSLATION — TRADUCTION]

AGREEMENT<sup>1</sup> BETWEEN THE GOVERNMENT OF THE FRENCH REPUBLIC AND THE GOVERNMENT OF THE ARAB REPUBLIC OF EGYPT ON THE PEACEFUL USES OF NUCLEAR ENERGY

The Government of the French Republic and the Government of the Arab Republic of Egypt, hereinafter referred to as the “Contracting Parties”,

Considering the importance which they attach to the peaceful uses of nuclear energy,

Desirous of pursuing and strengthening the existing nuclear co-operation between their two countries and, in particular, of encouraging the contribution of the French authorities concerned and of French industry to the Egyptian nuclear power programme, as set forth in their joint declaration of 12 February 1981,

Considering that the French Republic, as a nuclear-weapon State and a Party to the Treaty establishing the European Atomic Energy Community (EURATOM),<sup>2</sup> did on 20 and 27 July 1978 sign an agreement with the European Atomic Energy Community and the International Atomic Energy Agency for the application of safeguards in France,<sup>3</sup>

Considering that the Arab Republic of Egypt, as a non-nuclear-weapon State, did deposit, on 26 February 1981, at London, its instruments of ratification<sup>4</sup> to the Treaty on the Non-Proliferation of Nuclear Weapons opened for signature at London, Moscow and Washington on 1 July 1968<sup>5</sup> and that it is preparing to sign, with the International Atomic Energy Agency, the safeguards agreement referred to in article III, paragraphs 1 and 4 of that Treaty,

Reaffirming their commitment to devote their co-operation in the field of nuclear energy to exclusively peaceful uses and to subject it to the safeguards of the International Atomic Energy Agency,

Have agreed as follows:

*Article I.* The Contracting Parties undertake to develop their co-operation in the peaceful uses of nuclear energy and, in particular, to facilitate the contribution of the French authorities concerned and of French industry to the Egyptian nuclear power programme.

*Article II.* In pursuance of the provisions of article I of this Agreement, the Contracting Parties undertake to promote:

— The conclusion of specific agreements between competent public authorities and agencies of the two Contracting Parties,

<sup>1</sup> Came into force on 21 July 1981, the date of the last of the notifications (effected on 29 June and 21 July 1981) by which the Contracting Parties informed each other of the completion of the constitutional procedures, in accordance with article XIII.

<sup>2</sup> United Nations, *Treaty Series*, vol. 298, p. 167.

<sup>3</sup> *Ibid.*, vol. 1259, No. I-20680.

<sup>4</sup> *Ibid.*, vol. 1254, p. 487.

<sup>5</sup> *Ibid.*, vol. 729, p. 161.

— The drawing up of contracts relating to nuclear energy projects, industrial applications and the provision of materials, nuclear materials, equipment, facilities and technological information.

*Article III.* The purpose of the agreements and contracts referred to in article II of this Agreement shall be, in particular:

- To contribute to the implementation of the Egyptian nuclear power programme. To that end, this Agreement shall enable Egypt, at the outset, to purchase from the French Republic nuclear power plants of a total approximate capacity of 2,000 MW, the low-enriched uranium necessary for the fuelling of such facilities and the services necessary for their operation;
- To organize the exchange of scientific and technical information between the two countries;
- To specify modalities for the provision of advice and assistance and the organization of exchanges of personnel, scientific visits, expert meetings and the reception of trainees.

*Article IV.* In order adequately to encourage and co-ordinate the activities envisaged above, the Contracting Parties decide to establish a liaison group under the joint chairmanship of the French Atomic Energy Commission and the Egyptian Nuclear Power Plants Authority. The functioning of this liaison group shall be the subject of a protocol to be concluded between the two authorities.

*Article V.* Each Contracting Party shall, by adopting the required measures within its own jurisdiction, and particularly those relating to fiscal and/or customs matters, facilitate the proper implementation of this Agreement and of the specific agreements and contracts to be drawn up in order to ensure its application.

*Article VI.* 1. Each Contracting Party undertakes to ensure that:

- (A) The materials, nuclear materials, equipment, facilities and technological information transferred from one to the other are not used for the design, development, manufacture, acquisition or testing of nuclear weapons or other nuclear explosive devices or any other military nuclear use.
- (B) The materials, nuclear materials, equipment and facilities transferred from one to the other are subject to the safeguards of the International Atomic Energy Agency.
- (C) The materials, nuclear materials, equipment and facilities obtained from or by means of the items referred to in paragraph 1 (A) of this article, including all future generations of special fissionable materials recovered or obtained as by-products, are not used for the design, development, manufacture, acquisition or testing of nuclear weapons or other nuclear explosive devices, or for any other nuclear military purpose, and are subject to the safeguards of the International Atomic Energy Agency.

2. Compliance with these undertakings shall be guaranteed:

- In Egyptian territory, by an agreement to be concluded between the Arab Republic of Egypt and the International Atomic Energy Agency in implementation of article III, paragraphs 1 and 4, of the Treaty on the Non-Proliferation of Nuclear Weapons and

— In the territory of the French Republic, by the Agreement signed on 20 and 27 July 1978 between France, the European Atomic Energy Community and the International Atomic Energy Agency for the application of safeguards in France.

3. In the event that the safeguards referred to in the previous paragraph can no longer be applied in the territory of one and/or the other Contracting Party, the Contracting Parties undertake to draw up and implement as rapidly as possible a mutually agreed system of safeguards equivalent in effectiveness and scope to the system previously applied.

4. The terms “materials”, “nuclear materials”, “equipment”, “facilities” and “technological information” are defined in annex A to this Agreement.

*Article VII.* 1. Each Contracting Party shall ensure that, within its jurisdiction, the items referred to in article VI of this Agreement shall be in the custody only of persons that it has authorized for that purpose.

2. Each Contracting Party shall, within its territory, as well as in the case of transport outside its territory, take the necessary measures to ensure the physical protection of the materials, nuclear materials, equipment and facilities referred to in this Agreement.

3. With respect to nuclear materials, the Contracting Parties undertake to comply with the levels of physical protection established in annex B to this Agreement.

*Article VIII.* 1. Should one of the Contracting Parties consider retransferring out of its jurisdiction items referred to in article VI, paragraph 1 (A), of this Agreement, or transferring out of its jurisdiction articles referred to in article VI, paragraph 1 (C), of this Agreement, it shall do so only after obtaining from the recipient of those items the same safeguards as those laid down in this Agreement.

2. That Contracting Party shall, moreover, obtain the prior agreement of the Contracting Party which was the original supplier:

- (A) For any retransfer of facilities for reprocessing, enrichment or heavy-water production, their major critical components or the relevant technology;
- (B) For any transfer of facilities or major critical components derived from the items referred to in paragraph 2 (A) of this article;
- (C) For any transfer or retransfer of uranium with an enrichment of 20 per cent or above in the isotopes 233 or 235, of plutonium and of heavy water.

*Article IX.* Furthermore, the possible supply of materials, nuclear materials, equipment, facilities and technological information referred to in article VIII, paragraph 2, of this Agreement shall be subject to special conditions which shall be determined in advance by mutual agreement.

*Article X.* Without prejudice to the right of each Contracting Party to conclude other agreements in the field of the peaceful uses of nuclear energy, none of the provisions of this Agreement may be interpreted as impinging upon the obligations which, as of the date of its signature, result from the participation of either Party in other international agreements relating to the peaceful uses of nuclear energy.

*Article XI.* 1. The Contracting Parties shall, at the request of either Party, consult together on any question relating to the interpretation or implementation of this Agreement.

2. Any dispute arising out of the interpretation or application of this Agreement which is not settled by negotiation between the Contracting Parties or as may otherwise be agreed by them shall, at the request of either Party, be submitted to an arbitral tribunal composed of three arbitrators. The said arbitrators shall be designated as follows:

The Contracting Party seeking arbitration shall communicate the name of an arbitrator to the other Contracting Party, which shall, in turn, within 30 days of such notification, communicate the name of the arbitrator of its choice. The two Contracting Parties shall, within 60 days of the designation of the second arbitrator, designate a third arbitrator who should be neither an Egyptian nor a French national. The third arbitrator shall be the Chairman of the tribunal.

If, within the time laid down, the designation of the second arbitrator has not taken place or if the Contracting Parties have failed to agree on the designation of the third arbitrator, the Secretary-General of the United Nations shall proceed to make the necessary appointments at the request of either Contracting Party.

3. The arbitral tribunal shall rule by a majority of its members. Its judgement shall be final and binding on both Contracting Parties, which shall without delay comply therewith. In the event of disagreement as to its effect, the arbitral tribunal shall interpret the judgement at the request of the Parties to the dispute.

The remuneration of the arbitrators shall be determined by mutual agreement between the Contracting Parties.

*Article XII.* This Agreement may be amended by mutual agreement between the Contracting Parties. Either Contracting Party may, at any time, take the initiative of proposing an amendment. The amendments accepted shall enter into force only after due approval or ratification by the Contracting Parties.

*Article XIII.* This Agreement shall be approved or ratified by the Contracting Parties. Each Contracting Party shall notify the other Contracting Party of the completion of the constitutional procedures required for such approval or ratification. This Agreement shall remain in force for 30 years from the day on which the last notification of approval or ratification is received. It shall be automatically renewed for periods of three years unless denounced by either of the Contracting Parties. Such denunciation must be ratified six months before the expiry of this Agreement.

*Article XIV.* In case of non-renewal or denunciation of this Agreement, the agreements and contracts referred to in articles II and III shall remain in force as long as they are not denounced. The relevant provisions of articles VI, VII, VIII and IX shall, in any event, continue to apply to the materials, nuclear materials, equipment, facilities and technological information referred to in this Agreement during the entire period of their utilization.

*Article XV.* This Agreement shall be transmitted by the Contracting Parties to the Secretary-General of the United Nations for registration pursuant to Article 102 of the Charter of the United Nations.

*Article XVI.* Annexes A and B, referred to in articles VI and VII, are an integral part of this Agreement.

IN WITNESS WHEREOF the representatives of the two Governments, duly authorized to that effect, have signed this Agreement.

DONE at Paris, on 27 March 1981, in duplicate in the French and Arabic languages, both texts being equally authentic.

For the Government  
of the French Republic:

[Signed]

ANDRÉ GIRAUD  
Minister of Industry

For the Government  
of the Arab Republic of Egypt:

[Signed]

MAHER ABAZA  
Minister of Electricity and Energy

## ANNEX A

### I. *Definitions*

#### *Equipment*

“Equipment” means the major items and components specified in part II below.

#### *Material*

“Material” means the non-nuclear materials for use in reactors specified in part III.

#### *Nuclear material*

“Nuclear material” means any “source material” or any “special fissionable material” as defined in article XX of the Statute of the International Atomic Energy Agency.<sup>1</sup>

The term “source material” shall not be interpreted as applying to ore or ore residue.

Any determination made by the Board of Governors of the Agency pursuant to article XX modifying the list of materials considered as “source material” or “special fissionable material” shall only affect the terms of this Agreement when the two Parties to the Agreement have informed each other in writing of their acceptance of such a modification.

#### *Facilities*

“Facilities” means all devices, equipment and buildings that might contain nuclear materials or in which fissionable materials might be produced or processed by the physical or chemical processes for which they were designed.

#### *Technological information*

“Technological information” means technical data in physical form, such as technical drawings, negative and positive photographs, recordings, project data, procedural manuals and operating instructions designated by the supplying Party as important to the design, construction, operation or maintenance of enrichment, reprocessing or heavy-water production facilities or major critical components thereof or such other technology as might be agreed between the Parties, but excluding data available to the public, for example, in published books or periodicals.

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

## II. 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 g per year.

### 2. *Components*

#### *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 above and are capable of withstanding the operating pressure of the primary coolant.

#### *Reactor fuel charging and discharging machines*

Manipulative equipment especially designed or prepared for inserting or removing fuel in a nuclear reactor as defined above capable of on-load operation or employing technically sophisticated positioning or alignment features to allow complex off-load fuelling operations such as those in which direct viewing of or access to the fuel is not normally available.

#### *Reactor control rods*

Rods especially designed or prepared for the control of the reaction rate in a nuclear reactor as defined above.

#### *Reactor pressure tubes*

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

#### *Zirconium tubes*

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

#### *Primary coolant pumps*

Pumps especially designed or prepared for circulating liquid metal as primary coolant for nuclear reactors as defined above.

### 3. — *Plants for the reprocessing of irradiated fuel elements, and equipment especially designed or prepared therefor*

— *Plants for the fabrication of fuel elements*

— *Equipment, other than analytical instruments, especially designed or prepared for the separation of isotopes of uranium*

— *Plants for the production of heavy water, deuterium and deuterium compounds and equipment especially designed or prepared therefor*

## III. *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 above in quantities exceeding 200 kg of deuterium atoms for any one recipient country in any period of 12 months.

#### *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 centimetres in quantities exceeding 30 metric tons for any one recipient country in any period of 12 months.

## ANNEX B

## AGREED LEVELS OF PHYSICAL PROTECTION

The agreed levels of physical protection to be ensured by the competent national authorities in the use, storage and transportation of the materials listed in 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 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.

## 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 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.

## 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.

*Transportation* under special precautions as identified above for transportation of category II and III materials and, in addition, under constant surveillance by escorts and under conditions which assure close communication with appropriate response forces.

| Material   | Category I   | Category II                           | Category III <sup>c</sup>             |
|--|--------------|---------------------------------------|---------------------------------------|
| 1. Plutonium <sup>a</sup><br>Unirradiated <sup>b</sup>                     | 2 kg or more | Less than 2 kg but<br>more than 500 g | 500 g or less but<br>more than 15 g   |
| 2. Uranium-235<br>Unirradiated <sup>b</sup>                                |              |                                       |                                       |
| — uranium enriched<br>to 20% <sup>235</sup> U or<br>more                   | 5 kg or more | Less than 5 kg but<br>more than 1 kg  | 1 kg or less but<br>more than 15 g    |
| — uranium enriched<br>to 10% <sup>235</sup> U but<br>less than 20%         | —            | 10 kg or more                         | Less than 10 kg but<br>more than 1 kg |
| — uranium enriched<br>above natural, but<br>less than 10% <sup>235</sup> U | —            | —                                     | 10 kg or more                         |
| 3. Uranium-233<br>Unirradiated <sup>b</sup>                                | 2 kg or more | Less than 2 kg but<br>more than 500 g | 500 g or less but<br>more than 15 g   |



| <i>Material</i>    | <i>Category I</i> | <i>Category II</i>  | <i>Category III<sup>c</sup></i> |
|--------------------|-------------------|---|---------------------------------|
| 4. Irradiated fuel |                   | Natural or depleted uranium, thorium or low-enriched fuel (less than 10% fissile content) <sup>d, e</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> Quantities falling below the category III level and source materials should be protected in accordance with prudent management practice.

<sup>d</sup> Although this level of protection is recommended, it would be open to States, upon evaluation of the specific circumstances, to assign a different category of physical protection.

<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 while the radiation level from the fuel exceeds 100 rads/hour at one metre unshielded.

## RELATED LETTER

Paris, 27 March 1981

Sir,

With reference to article X of the Agreement on the peaceful uses of nuclear energy signed today between our two Governments, I have the honour to inform you that, for the French Government, this article has particular reference to the Treaty establishing the European Atomic Energy Community, signed at Rome on 25 March 1957.

Accept, Sir, the assurances of my highest consideration.

[Signed]

ANDRÉ GIRAUD

His Excellency

Mr. Maher Abaza

Minister of Electricity and Energy

of the Government of the Arab Republic of Egypt