

# **AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE REPUBLIC OF COLOMBIA CONCERNING CIVIL USES OF NUCLEAR ENERGY**

The Government of the United States of America and the Government of the Republic of Colombia,

Considering their close cooperation in the development, use and control of peaceful uses of nuclear energy pursuant to the Agreement for Cooperation Between the Government of the United States of America and the Government of the Republic of Colombia Concerning Civil Uses of Atomic Energy, signed April 9, 1962 and amended on February 24, 1967;

Reaffirming their commitment to ensuring that the international development and use of nuclear energy for peaceful uses are carried out under arrangements which will to the maximum possible extent further the objectives of the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Treaty on the Non-Proliferation of Nuclear Weapons;

Desiring to continue and expand their cooperation in this field;

Affirming their support of the objectives of the Statute of the International Atomic Energy Agency and their desire to promote full implementation of the Treaty for the Prohibition of Nuclear Weapons in Latin America; and

Mindful that peaceful nuclear activities must be undertaken with a view to protecting the international environment from radioactive, chemical and thermal contamination;

Have agreed as follows:

## **ARTICLE 1 - SCOPE OF COOPERATION**

1. The United States and Colombia shall cooperate in the use of nuclear energy for peaceful purposes in accordance with the provisions of this agreement and their applicable treaties, national laws, regulations and license requirements.
2. Transfers of information, material, equipment, and components under this agreement may be undertaken directly between the parties or through authorized persons under their jurisdiction. Such transfers shall be subject to this agreement and to such additional terms and conditions as may be agreed by the parties.
3. Material, equipment and components transferred from the territory of one party to the

territory of the other party for peaceful purposes, whether directly or through a third country, will be regarded as having been transferred pursuant to the agreement only upon confirmation, by the appropriate Government authority of the recipient party to the appropriate Government authority of the supplier party, that such material, equipment or components will be subject to the agreement.

4. Cooperation under this agreement shall require the application of IAEA safeguards with respect to all nuclear activities within the territory of Colombia, under its jurisdiction or carried out under its control anywhere.

Implementation of the safeguards agreement between Colombia and the IAEA concluded on July 27, 1979, pursuant to Article 13 of the Treaty for the Prohibition of Nuclear Weapons in Latin America shall be considered to fulfill the requirement stated in the foregoing sentence.

## ARTICLE 2 - DEFINITIONS

For the purposes of this agreement:

(A) "By-product 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;

(B) "Component" means a component part of equipment or other item, so designated by agreement of the parties;

(C) "Equipment" means any production or utilization facility (including uranium enrichment and nuclear fuel reprocessing facilities), or any facility for the production of heavy water or the fabrication of nuclear fuel containing plutonium, or any other item so designated by agreement of the parties;

(D) "High enriched uranium" means uranium enriched to twenty percent or greater in the isotope 235;

(E) "Low enriched uranium" means uranium enriched to less than twenty percent in the isotope 235;

(F) "Major critical component" means any part or group or parts essential to the operation of a sensitive nuclear facility;

(G) "Material" means source material, special nuclear material or by-product material, radioisotopes other than by-product material, moderator material, or any other such substance so designated by agreement of the parties;

(H) "Moderator material" means heavy water, or graphite or beryllium of a purity suitable for use in a reactor to slow down high velocity neutrons and increase the likelihood of further fission, or any other such material so designated by agreement of the parties;

(I) "Parties" means the Government of the United States of America and the Government of the Republic of Colombia;

(J) "Person" means any individual or any entity subject to the jurisdiction of either party but does not include the parties to this agreement;

(K) "Peaceful purposes" include the use of information, material, equipment and components in such fields as research, power generation, medicine, agriculture and industry but do not include use in, research on or development of any nuclear explosive device, or any military purpose;

(L) "Previous agreement" means the Agreement for Cooperation between the Government of the United States of America and the Government of the Republic of Colombia Concerning Civil Uses of Atomic Energy, signed on April 9, 1962 and amended on February 24, 1967;

(M) "Production facility" means any nuclear reactor designed or used primarily for the formation of plutonium or uranium 233, any facility designed or used for the separation of the isotopes of uranium or plutonium, any facility designed or used for the processing of irradiated materials containing special nuclear material, or any other item so designated by agreement of the parties;

(N) "Reactor" means any apparatus, other than a nuclear weapon or other nuclear explosive device, in which a self-sustaining fission chain reaction is maintained by utilizing uranium, plutonium or thorium, or any combination thereof;

(O) "Restricted data" means all data concerning (i) design, manufacture, or utilization of nuclear weapons, (ii) the production of special nuclear material, or (iii) 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 United States;

(P) "Sensitive nuclear facility" means any facility designed or used primarily for uranium enrichment, reprocessing of nuclear fuel, heavy water production, or fabrication of nuclear fuel containing plutonium;

(Q) "Sensitive nuclear technology" means any information (including information incorporated in equipment or an important component) which is not in the public domain and which is important to the design, construction, fabrication, operation or maintenance of any sensitive nuclear facility, or other such information which may be so designated by agreement of the parties;

(R) "Source material" means (i) uranium, thorium, or any other material so designated by agreement of the parties, or (ii) ores containing one or more of the foregoing materials, in such concentration as the parties may agree from time to time;

(S) "Special nuclear material" means (i) plutonium, uranium 233, or uranium enriched in the isotope 235, or (ii) any other material so designated by agreement of the parties; and

(T) "Utilization facility" means any reactor other than one designed or used primarily for the formation of plutonium or uranium 233.

### ARTICLE 3 - TRANSFER OF INFORMATION

1. Information concerning the use of nuclear energy for peaceful purposes may be transferred. Fields which may be covered include, but shall not be limited to, the following;

(A) Development, design, construction, operation, maintenance and use of reactors and reactor experiments;

(B) The use of material in physical and biological research, medicine, agriculture and industry;

(C) Exploration for and development of uranium resources;

(D) Fuel cycle studies of ways to meet future worldwide civil nuclear needs, including multilateral approaches to guaranteeing nuclear fuel supply and appropriate techniques for management of nuclear wastes;

(E) Safeguards and physical security of materials, equipment and components;

(F) Health, safety and environmental considerations related to the foregoing;  
and

(G) Assessing the role nuclear power may play in national energy plans.

2. This agreement does not require the transfer of any information which the parties are not permitted to transfer.

3. Restricted data shall not be transferred under this agreement.

4. Sensitive nuclear technology shall not be transferred under this agreement unless provided by an amendment to this agreement.

## ARTICLE 4 - TRANSFER OF MATERIAL, EQUIPMENT, AND COMPONENTS

1. Material, equipment and components may be transferred for applications consistent with this agreement. However, sensitive nuclear facilities and major critical components shall not be transferred under this agreement unless provided by an amendment to this agreement.

2. Low enriched uranium may be transferred for use as fuel in reactors and in reactor experiments, for conversion or fabrication, or for such other purposes as the parties may agree.

3. Special nuclear material other than low enriched uranium and material contemplated under paragraph 6 may, if the parties agree, be transferred for specified applications where technically and economically justified or where justified for the development and demonstration of reactor fuel cycles to meet energy security and non-proliferation objectives.

4. The quantity of special nuclear material transferred under this agreement shall not at any time be in excess of the quantity the parties agree is necessary for any of the following purposes: the loading of reactors or use in reactor experiments, the efficient and continuous operation of such reactors or conduct of such reactor experiments, and the accomplishment of other purposes as may be agreed by the parties. If high enriched uranium in excess of the quantity required for these purposes exists in Colombia, the United States shall have the right to require the return of any high enriched uranium transferred pursuant to this agreement (including irradiated high enriched uranium) which contributes to this excess. If this right is exercised, the parties shall make appropriate commercial arrangements which shall not be subject to any further agreement between the parties as otherwise contemplated under articles 5 and 6.

5. Any high enriched uranium transferred pursuant to this agreement shall not be at a level of enrichment in the isotope 235 in excess of levels to which the parties agree are necessary for the purposes described in paragraph 4.

6. Small quantities of material, including special nuclear material, may be transferred for use as samples, standards, detectors, targets and such other purposes as the parties may agree. Transfers pursuant to this paragraph shall not be subject to the quantity limitations in paragraph 4.

7. The United States shall endeavor to take such actions as may be necessary to ensure a reliable supply of nuclear fuel to Colombia, including the export of nuclear material on a timely basis and the availability of the capacity to carry out this undertaking during the period of this agreement.

## ARTICLE 5 - STORAGE AND RETRANSFERS

1. Material transferred pursuant to this agreement and material used in or produced through the use of any material or equipment transferred pursuant to this agreement may be stored by either party, except that each party guarantees that no such plutonium or uranium 233 (except as contained in irradiated fuel elements) or high enriched uranium, over which it has jurisdiction, shall be stored in any facility that has not been agreed to in advance by the parties.

2. Material, equipment or components transferred pursuant to this agreement and any special nuclear material produced through the use of any such material or equipment may be transferred by the recipient party, except that such party guarantees that any such material, equipment, components or special nuclear material, over which it has jurisdiction, shall not be transferred to unauthorized persons or, unless the parties agree, beyond its territorial jurisdiction.

## ARTICLE 6 - REPROCESSING AND ENRICHMENT

1. Each party guarantees that material transferred to and under its jurisdiction pursuant to this agreement and material used in or produced through the use of any material or equipment transferred to and under its jurisdiction pursuant to this agreement shall not be reprocessed unless the parties agree.

Each party guarantees that any plutonium, uranium 233, high enriched uranium, or irradiated source or special nuclear material transferred to and under its jurisdiction pursuant to this agreement or produced through the use of any material or equipment transferred to and under its jurisdiction pursuant to this agreement shall not, unless the parties agree, be altered in form or content, except by irradiation or further irradiation.

2. Each party guarantees that no uranium transferred to and under its jurisdiction pursuant to this agreement, and no uranium used in any equipment so transferred and under its jurisdiction shall be enriched after transfer unless the parties agree.

## ARTICLE 7 - PHYSICAL SECURITY

1. Each party guarantees that adequate physical security shall be maintained with respect to any material and equipment transferred to and under its jurisdiction pursuant to this agreement and with respect to any special nuclear material used in or produced through the use of any material or equipment transferred to and under its jurisdiction pursuant to this agreement.

2. The parties agree to the levels for the application of physical security set forth in the Annex, which levels may be modified by mutual consent of the parties. The parties shall

maintain adequate physical security measures in accordance with such levels. These measures shall as a minimum provide protection comparable to that set forth in document INFCIRC/225/Revision 1 of the International Atomic Energy Agency entitled, "The Physical Protection of Nuclear Material", or in any revision of that document agreed to by the parties.

3. The adequacy of physical security measures maintained pursuant to this article shall be reviewed by the parties periodically and whenever either party is of the view that revised measures may be required to maintain adequate physical security.

4. Each party shall identify those agencies or authorities having responsibility for ensuring that levels of physical security are adequately met and having responsibility for coordinating response and recovery operation in the event of unauthorized use or handling of material subject to this article. Each party shall also designate points of contact within its national authorities to cooperate on matters of out-of-country transportation and other matters of mutual concern.

5. The provisions of this article shall be implemented in such a manner as to avoid hampering, delay or undue interference in the parties' nuclear activities and so as to be consistent with prudent management practices required for the economic and safe conduct of their nuclear programs.

#### ARTICLE 8 - NO EXPLOSIVE OR MILITARY APPLICATION

Each party guarantees that no material, equipment or components transferred to and under its jurisdiction pursuant to this agreement and no material used in or produced through the use of any material, equipment or components so transferred to and under its jurisdiction shall be used for any nuclear explosive device, for research on or development of any nuclear explosive device, or for any military purpose.

#### ARTICLE 9 - SAFEGUARDS

1. Material transferred to Colombia pursuant to this agreement and any source or special nuclear material used in or produced through the use of any material, equipment, or components transferred pursuant to this agreement shall be subject to safeguards in accordance with the agreement between Colombia and the IAEA for the Application of Safeguards in Connection with the Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco) concluded on July 27, 1979.

2. If the United States or Colombia becomes aware of circumstances which demonstrate that the IAEA for any reason is not or will not be applying safeguards in accordance with the agreement as provided for in paragraph 1, to ensure effective continuity of safeguards the parties shall immediately enter into arrangements which conform with IAEA safeguards principles and procedures and with the coverage required by that paragraph,

and which provide assurance equivalent to that intended to be secured by the system they replace.

3. If either party becomes aware of circumstances referred to in paragraph 2, the United States shall have the rights listed below. These rights shall be suspended if the United States agrees that the need to exercise such rights is being satisfied by the application of IAEA safeguards under arrangements pursuant to paragraph 2.

(A) To review in a timely fashion the design of any equipment which is to be transferred pursuant to the agreement, or of any facility which is to use, fabricate, process, or store any material so transferred or any special nuclear material used in or produced through the use of such material or equipment;

(B) To require the maintenance and production of records for the purpose of assisting in ensuring accountability for material transferred pursuant to the agreement and any source material or special nuclear material used in or produced through the use of any material, equipment or components so transferred; and

(C) To designate personnel acceptable to Colombia who shall have access to all places and data necessary to account for the material referred to in subparagraph (B), to inspect any equipment or facility referred to in subparagraph (A), and to install any devices and make such independent measurements as may be deemed necessary to account for such material.

Colombia shall not unreasonably withhold its acceptance of such personnel designated by the United States under this subparagraph. Such personnel shall, if either party so requests, be accompanied by personnel designated by Colombia.

4. Each party shall establish and maintain a system of accounting for and control of all material transferred pursuant to this agreement and any material used in or produced through the use of any material, equipment or components so transferred, the procedures of which shall be comparable to those set forth in IAEA document INFCIRC/153 (corrected), or in any revision of that document agreed to by the parties.

5. Upon the request of either party, the other party shall report or permit the IAEA to report to the requesting party on the status of all inventories of any materials subject to paragraph 1 of this article.

6. Design information relevant to safeguards for new equipment required to be safeguarded under this agreement shall be provided to the IAEA upon its request in a timely fashion.

7. Each party guarantees it shall take such measures as are necessary to maintain and facilitate the application of safeguards provided for under this article.



8. The provisions of this article shall be implemented in such a manner as to avoid hampering, delay or undue interference in the parties' nuclear activities and so as to be consistent with prudent management practices required for the economic and safe conduct of their nuclear programs.

#### ARTICLE 10 - MULTIPLE SUPPLIER CONTROLS

If an agreement between either party and another nation or group of nations provides such other nation or group of nations rights equivalent to any or all of those set forth under articles 5, 6, or 7 with respect to material, equipment or components subject to this agreement, the parties may, upon the request of either of them, agree that the implementation of such rights will be accomplished by such other nation or group of nations.

#### ARTICLE 11 - CESSATION OF COOPERATION

1. If either party at any time following entry into force of this agreement,

(A) does not comply with the provisions of articles 5, 6, 7, 8 or 9, or

(B) terminates, abrogates or materially violates an IAEA safeguards agreement, the other party shall have rights to cease further cooperation under this agreement and to require the return of any material, equipment and components transferred under this agreement and any special nuclear material produced through their use.

2. If Colombia at any time following entry into force of this agreement detonates a nuclear explosive device, the United States shall have the same rights as specified in paragraph 1.

3. If either party exercises its rights under this article to require the return of any material, equipment or components, it shall, after removal from the territory of the other party, reimburse the other party the fair market value of such material, equipment or components. In the event this right is exercised, the parties shall make such other appropriate arrangements as may be required which shall not be subject to any further agreement between the parties as otherwise contemplated under articles 5 and 6.

#### ARTICLE 12 - PREVIOUS AGREEMENT TERMINATED

1. The "Agreement for Cooperation Between the Government of the United States of America and the Government of the Republic of Colombia Concerning Civil Uses of Atomic Energy" signed on April 9, 1962, as amended, expired on March 28, 1977. The exchange of notes of March 28, 1977, which extended the terms and conditions of that agreement, as amended, with regard to material and equipment subject to it, shall

terminate on the date this agreement enters into force.

2. Cooperation initiated under the previous agreement shall continue in accordance with the provisions of the present agreement.

All the provisions of this agreement shall apply to material and equipment subject to the previous agreement.

#### ARTICLE 13 - CONSULTATIONS AND ENVIRONMENTAL PROTECTION

1. The parties undertake to consult at the request of either party regarding the implementation of this agreement and the development of further cooperation in the field of peaceful uses of nuclear energy.

2. The parties shall consult, with regard to activities under this agreement, to identify the international environmental implications arising from such activities and shall cooperate in protecting the international environment from radioactive, chemical or thermal contamination arising from peaceful nuclear activities under this agreement and in related matters of health and safety.

#### ARTICLE 14 - ENTRY INTO FORCE AND DURATION

1. Each of the parties shall provide the other party with written notification when it has complied with its applicable requirements for entry into force of this agreement. This agreement shall enter into force on the date on which the later of such notification is received, and shall remain in force for a period of thirty (30) years. The parties may extend this term for additional periods.

2. Notwithstanding the suspension, termination or expiration of this agreement or any cooperation hereunder for any reason, articles 5, 6, 7, 8, 9 and 11 shall continue in effect so long as any material, equipment or components subject to these articles remains in the territory of the party concerned or under its jurisdiction or control anywhere, or until such time as the parties agree that such material, equipment or components are no longer useable for any nuclear activity relevant from the point of view of safeguards.

3. Each party shall have the right to terminate cooperation under this agreement after giving one year's notice of its intent to do so, subject to the conditions set forth in paragraph 2.

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

DONE at Bogota, this eighth day of January 1981, in duplicate, in the English and Spanish languages, both equally authentic.

FOR THE GOVERNMENT OF THE UNITED STATES OF AMERICA  
Thomas David Boyatt.

FOR THE GOVERNMENT OF THE REPUBLIC OF COLOMBIA  
Diego Uribe Vargas.

## ANNEX

Pursuant to paragraph 2 of article 7, the agreed levels of physical security 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. Specific measures taken in this context shall 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 by escorts and under conditions which assure close communication with appropriate response forces.

TABLE: CATEGORIZATION OF NUCLEAR MATERIAL [1]

Material	Form	Category		
		I	II	III
1. Plutonium:[1, 3]	Unirradiated [4]	2 kg or more	Less than 2 kg but more than 500 g.	500 g or less [5]
2. Uranium-235 [6]	Unirradiated: [4]			
	Uranium enriched to 20 percent U235 or more	5 kgs or more	Less than 5 kg but more than 1 kg.	1 kg or less.[5]
	Uranium enriched to 10 percent U235 but less than 20 percent	[2,3,5]	10 kg or more	Less than 10 kgs [5]
	Uranium enriched above natural, but less than 10 percent U235.			10 kg or more
3. Uranium-233:	Unirradiated [4]	2 kgs or more	Less than 2 kg but more than 500 g.	500 g or less[5]

1 Irradiated fuel should be protected as category I, II or III nuclear material depending on the category of the fresh fuel. However, fuel which by virtue of its original fissile material content is included as category I or II before irradiation should only be reduced 1 category level, while the radiation from the fuel exceeds 100 rads/hour at one meter unshielded.

2 All plutonium except that with isotopic concentration exceeding 80 percent in plutonium-238.

3 The State's competent authority should determine if there is a credible threat to disperse plutonium malevolently; The State should then apply physical protection requirements for category I, II or III of nuclear material, as it deems appropriate and without regard to the plutonium quantity specified under each category herein, to the plutonium isotopes in those quantities and forms determined by the State to fall within the scope of the credible dispersal threat.

4 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 1 meter unshielded.

5 Less than a radiologically significant quantity should be exempted.

6 Natural uranium, depleted uranium and thorium and quantities of uranium enriched to less than 10 percent not falling in category III should be protected in accordance with prudent management practice.