

No. 4123

**UNITED STATES OF AMERICA
and
AUSTRALIA**

**Agreement for co-operation concerning the civil uses of
atomic energy. Signed at Washington, on 22 June 1956**

Official text: English.

Registered by the United States of America on 20 December 1957.

**ÉTATS-UNIS D'AMÉRIQUE
et
AUSTRALIE**

**Accord de coopération concernant l'utilisation de l'énergie
atomique à des fins civiles. Signé à Washington, le
22 juin 1956**

Texte officiel anglais.

Enregistré par les États-Unis d'Amérique le 20 décembre 1957.

No. 4123. AGREEMENT¹ FOR CO-OPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE COMMONWEALTH OF AUSTRALIA CONCERNING THE CIVIL USES OF ATOMIC ENERGY. SIGNED AT WASHINGTON, ON 22 JUNE 1956

Whereas the Government of the United States of America, through the United States Atomic Energy Commission, and the Government of the Commonwealth of Australia, through the Australian Atomic Energy Commission, are cooperating in the production of uranium ores; and

Whereas the Government of the United States of America and the Government of the Commonwealth of Australia, mindful of the fact that atomic energy is capable of application for peaceful purposes which hold great promise for all mankind, desire to cooperate with each other in developing and furthering the beneficial uses of atomic energy; and

Whereas the Government of the Commonwealth of Australia is now engaged in the development of facilities for the application of atomic energy for civil purposes;

The Parties therefore agree as follows :

Article I

This Agreement shall enter into force on the day on which each Government shall receive from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Agreement and shall remain in force for a period of ten years.

Article II

A. Subject to the provisions of this Agreement, the availability of personnel and material, and the applicable laws, regulations and license requirements in force from time to time in their respective countries, the Parties shall cooperate with each other in the achievement of the use of atomic energy for peaceful purposes.

B. The disposition and utilization of atomic weapons and the exchange of Restricted Data relating to the design or fabrication of atomic weapons shall be outside the scope of this Agreement.

¹ Came into force on 28 May 1957, the date on which each Government received from the other Government written notification that it had complied with all statutory and constitutional requirements for the entry into force of such Agreement, in accordance with article I.

C. The exchange of Restricted Data under this Agreement shall be subject to the following limitations :

1. Restricted Data which are primarily of military significance shall not be exchanged.
2. Restricted Data concerning the production of special nuclear materials except that concerning the incidental production of special nuclear materials in a power reactor shall not be exchanged.
3. The exchange of Restricted Data shall extend only to that which is relevant to current or projected programs.
4. The development of submarine, ship, aircraft, and certain package power reactors is presently concerned primarily with their military uses. Accordingly, Restricted Data pertaining primarily to such reactors will not be exchanged until such time as these types of reactors warrant peacetime application and the exchange of information on these types of reactors may be agreed. Information on the adaptation of these types of reactors to military use will not be exchanged. Likewise, Restricted Data pertaining primarily to any future reactor-types the development of which is concerned primarily with their military use will not be exchanged until such time as these types of reactors warrant civil application and exchange of information on these types of reactors may be agreed; and Restricted Data on the adaptation of these types of reactors to military use will not be exchanged.

D. This Agreement shall not require the exchange of any information which the Parties are not permitted to communicate because the information is privately developed and privately owned or has been received from another government.

E. It is agreed that the Parties will not transfer or export, or permit the transfer or export, under this Agreement, of any material, equipment or device which is primarily of military significance.

Article III

A. Subject to the provisions of Article II, classified information in the specific fields set out below and unclassified information shall be exchanged between the United States Commission and the Australian Commission with respect to the application of atomic energy to peaceful uses, including research and development relating to such uses and problems of health and safety connected therewith. The exchange of information provided for in this Article shall be accomplished through the various means available, including reports, conferences and visits to facilities.

B. The Parties agree to exchange the following classified information including Restricted Data :

1. *Reactors*

(a) General information on design and characteristics of research reactors, and of experimental, demonstration power or power reactors as is required to permit evaluation and comparison of their potential use in a power production program.

(b) Technological information as may be agreed, on specific research reactors, and on experimental, demonstration power or power reactors as is required for the design, development, construction and operation of such reactors, and when in the case of the Commonwealth of Australia such information is required in connection with reactors currently in operation in the Commonwealth of Australia or when such reactors are being seriously considered for construction by the Commonwealth of Australia as a source of power or as an intermediate step in a power production program.

(c) Classified information within subparagraphs (a) and (b) hereof shall be exchanged within the following fields :

- (1) *Specifications for Reactor Materials.* Final form specifications including composition, shape, size and special handling techniques of reactor materials including uranium, heavy water, reactor grade graphite, and zirconium.
- (2) *Properties of Reactor Materials.* Physical, chemical, metallurgical, nuclear and mechanical properties of reactor materials including fuel, moderator and coolant and the effects of the reactor's operating conditions on the properties of these materials.
- (3) *Reactor Components.* The design and performance specifications of reactor components, but not including the methods of production and fabrication.
- (4) *Reactor Physics Technology.* This area includes theory of and pertinent data relating to neutron bombardment reactions, neutron cross sections, criticality calculations, reactor kinetics and shielding.
- (5) *Reactor Engineering Technology.* This area includes considerations pertinent to the overall design and optimization of the reactor and theory of and data relating to such problems as reactor stress and heat transfer analysis.
- (6) *Environmental Safety Considerations.* This area includes considerations relating to normal reactor radiations and possible accidental hazards and the effect of these on equipment and personnel and appropriate methods of waste disposal and decontamination.

2. *Source Materials*

Geology, exploration techniques, chemistry and technology of extracting uranium and thorium from their ores and concentrates, the chemistry, production technology, and techniques of purification and fabrication of uranium and thorium compounds and metals, including design, construction and operation of plants.

Article IV

A. *Research Materials*

In connection with any subject of agreed exchange of information as provided in Article III and subject to the provisions of Article II, materials of interest, including source materials, special nuclear materials, byproduct material, other radioisotopes, and stable isotopes will, under this Article, be exchanged in research quantities for research purposes and under such terms and conditions as may be agreed when such materials are not available commercially.

B. *Research Facilities*

Subject to the provisions of Article II, and under such terms and conditions as may be agreed, and to the extent as may be agreed, specialized research facilities and reactor materials testing facilities of the Parties shall be made available for mutual use consistent with the limits of space, facilities, and personnel conveniently available, when such facilities are not commercially available. It is understood that neither Party will be able to permit access by personnel of the other Party to facilities which are primarily of military significance.

Article V

With respect to the subjects of agreed exchange of information as provided in Article III and subject to the provisions of Article II, equipment and devices may be transferred from one Party to the other under such terms and conditions as may be agreed. It is recognized that such transfer will be subject to limitations which may arise from shortages of supplies or other circumstances existing at the time.

Article VI

A. It is contemplated that, as provided in this Article, private individuals and private organizations in either the United States or Australia may deal directly with private individuals and private organizations in the other country. Accordingly, in the fields referred to in paragraph B of this Article, persons under the jurisdiction of either the Government of the United States or the Govern-

ment of the Commonwealth of Australia will be permitted to make arrangements to transfer and export materials, including equipment and devices, to and perform services for the other government and such persons under its jurisdiction as are authorized by the other government to receive and possess such materials and utilize such services, provided that any classified information shall fall within the fields specified in paragraph B and subject to :

- (1) the provisions of paragraph E of Article II;
- (2) applicable laws, regulations and license requirements;
- (3) approval of the Party to the jurisdiction of which the person making the arrangement is subject if the materials or services are classified or if the furnishing of such materials or services required the communication of classified information.

B. To the extent necessary in carrying out the arrangements made under paragraph A of this Article, classified information in the following fields, subject in each case to the provisions of Article II, may be communicated by the person furnishing the material or service to the Party or person to whom such material or service is furnished :

1. The subjects of agreed exchange of information as provided in Article III.
2. Technological information within the categories set forth in Article III. B. 1. (c) as is required for the design, construction and operation of specific research reactors, and of experimental, power demonstration or power reactors, and when in the case of the Commonwealth of Australia such information is required in connection with reactors currently in operation in the Commonwealth of Australia or when such reactors are being seriously considered for construction by the Government of the Commonwealth of Australia or authorized persons under its jurisdiction as a source of power or as an intermediate step in a power production program.

Article VII

A. During the period of this Agreement, the United States Commission will sell to the Government of the Commonwealth of Australia uranium enriched in the isotope U-235 in a net amount not to exceed 500 kilograms of contained U-235 in uranium. This net amount shall be the quantity of contained U-235 in uranium sold to the Government of the Commonwealth of Australia less the quantity of contained U-235 in recoverable uranium resold to the United States or transferred to any other nation or international organization with the approval of the United States in accordance with this Agreement. This material may not be enriched above twenty percent (20%) U-235 except as hereinafter provided. Such material will be sold subject to the terms and conditions of this Article and the other provisions of this Agreement as and when required as initial and replacement fuel in the operation of defined research, experimental,

demonstration power and power reactors (1) which the Government of the Commonwealth of Australia, after consultation with the United States Commission, decides to construct or (2) which are constructed by a person in Australia with the concurrence of the Government of the Commonwealth of Australia, after consultation with the United States Commission; and as required in experiments related thereto. The United States Commission may, upon request and in its discretion, make a portion of the foregoing 500 kilograms available as material enriched up to ninety percent (90%) for use in a materials testing reactor, capable of operating with a fuel load not to exceed six (6) kilograms.

B. The quantity of uranium enriched in the isotope U-235 transferred by the United States Commission under this Article and in the custody of the Government of the Commonwealth of Australia shall not at any time be in excess of the amount of material necessary for the full loading of each defined reactor project which the Government of the Commonwealth of Australia or persons under its jurisdiction decide to construct as provided herein, plus such additional quantity as, in the opinion of the United States Commission, is necessary to permit the efficient and continuous operation of the reactor or reactors while replaced fuel elements are radioactively cooling in Australia or while fuel elements are in transit, it being the intent of the United States Commission to make possible the maximum usefulness of the material so transferred.

C. Each sale of uranium enriched in the isotope U-235 shall be subject to the agreement of the Parties as to the schedule of deliveries, the form of material to be delivered, charges therefor and the amount of material to be delivered consistent with the quantity limitations established in paragraph B. It is understood and agreed that although the Government of the Commonwealth of Australia will distribute uranium enriched in the isotope U-235 to authorized users in Australia, the Government of the Commonwealth of Australia will retain title to any uranium enriched in the isotope U-235 which is purchased from the United States Commission at least until such time as private users in the United States are permitted to acquire title in the United States to uranium enriched in the isotope U-235.

D. It is agreed that when any source or special nuclear materials received from the United States require reprocessing, such reprocessing shall be performed at the discretion of the United States Commission in either United States Commission facilities or facilities acceptable to the United States Commission, on terms and conditions to be later agreed; and it is understood, except as may otherwise be agreed, that the form and content of the irradiated fuel elements shall not be altered after their removal from the reactor and prior to delivery to

the United States Commission or the facilities acceptable to the United States Commission for reprocessing.

E. With respect to any special nuclear material produced in reactors fueled with material obtained from the United States which is in excess of Australia's need for such material in its program for the peaceful uses of atomic energy, the United States shall have and is hereby granted (a) a first option to purchase such material at prices then prevailing in the United States for special nuclear material produced in reactors which are fueled pursuant to the terms of an agreement for cooperation with the United States, and (b) the right to approve the transfer of such material to any other nation or international organization in the event the option to purchase is not exercised.

Article VIII

As may be necessary and as may be mutually agreed in connection with the subjects of agreed exchange of information as provided in Article III and under the limitations set forth in Article II and under such terms and conditions as may be mutually agreed, specific arrangements may be made from time to time between the Parties for lease, or sale and purchase, of quantities of materials including heavy water and natural uranium but not including special nuclear materials, greater than those required for research, when such materials are not available commercially.

Article IX

It is agreed that existing arrangements and contracts between the Combined Development Agency and the Government of the Commonwealth of Australia for the sale of uranium ores and concentrates to said Agency shall continue in effect until their expiration as provided in these arrangements or contracts.

Article X

A. With respect to any invention or discovery employing information classified when communicated in accordance with Article III and made or conceived as a result of such communication during the period of this Agreement, the Government of the United States of America with respect to invention or discovery rights owned by it, and the Government of the Commonwealth of Australia with respect to any invention or discovery owned by it or made or conceived by any person under its jurisdiction :

- (1) agree to transfer and assign or cause to be transferred or assigned to the other all right, title, and interest in and to any such invention, discovery, patent application or patent in the country of that other, subject to a royalty-free, nonexclusive, irrevocable license for the governmental purposes of the transferring Party and for purposes of mutual defense ;

- (2) shall, upon request of the other, grant or cause to be granted to the other a royalty-free, nonexclusive, irrevocable license for its governmental purposes in the country of the transferring party or third countries, including use in the production of materials in such countries for sale to the requesting Party by a contractor of such Party;
- (3) agree that each Party may otherwise deal with any invention, discovery, patent application or patent in its own country or third countries as it may desire, but in no event shall either Party discriminate against citizens of the country of the other in respect of granting any license under the patents owned by it in its own or third countries;
- (4) waive any and all claims against the other for compensation, royalty or award as respects any such invention or discovery, patent application or patent and release the other with respect to any such claim.

B. (1) No patent application with respect to any classified invention or discovery employing information which has been communicated under this Agreement may be filed by either Party or any person in the country of the other Party except in accordance with agreed conditions and procedures.

(2) No patent application with respect to any such classified invention or discovery may be filed in any country not a party to this Agreement except as may be agreed and subject to Article XIV.

(3) Appropriate secrecy or prohibition orders shall be issued for the purpose of giving effect to this paragraph.

Article XI

A. It is agreed that all information and material, including equipment and devices, which warrant a classification in accordance with the classification criteria referred to in the applicable security arrangements between the Australian Commission and the United States Commission shall be safeguarded in accordance with the security safeguards and standards prescribed in such security arrangements.

B. It is agreed that the recipient Party of any material, including equipment and devices, and of any classified information under this Agreement shall not further disseminate such information or transfer such material, including equipment and devices, to any other country without the written consent of the originating country. It is further agreed that neither Party to this Agreement will transfer to any other country equipment or device, the transfer of which would involve the disclosure of any classified information received from the other Party, without the written consent of such other Party.

Article XII

The Government of the United States of America and the Government of the Commonwealth of Australia affirm their common interest in the establishment of an international atomic energy agency to foster the peaceful uses of atomic energy. In the event such an international agency is created :

1. The Parties will consult with each other to determine in what respects, if any, they desire to modify the provisions of this Agreement for Cooperation. In particular, the Parties will consult with each other to determine in what respects and to what extent they desire to arrange for the administration by the international agency of those conditions, controls, and safeguards, including those relating to health and safety standards, required by the international agency in connection with similar assistance rendered to a cooperating nation under the aegis of the international agency.

2. In the event the Parties do not reach a mutually satisfactory agreement following the consultation provided in paragraph 1 of this Article, either Party may by notification terminate this Agreement. In the event this Agreement is so terminated, the Government of the Commonwealth of Australia shall return to the United States Commission all source and special nuclear materials received pursuant to this Agreement and in its possession or in the possession of persons under its jurisdiction.

Article XIII

The Government of the United States and the Government of the Commonwealth of Australia emphasize their common interest in assuring that any material, equipment, or device made available to the Government of the Commonwealth of Australia pursuant to this Agreement shall be used solely for civil purposes.

A. Except to the extent that the safeguards provided for in this Agreement are supplanted, by agreement of the Parties as provided in Article XII, by safeguards of the proposed international atomic energy agency, the Government of the United States of America, notwithstanding any other provisions of this Agreement, shall have the following rights :

1. With the objective of assuring design and operation for civil purposes and permitting effective application of safeguards, to review the design of any

- (i) reactor and
- (ii) other equipment and devices the design of which the United States Commission determines to be relevant to the effective application of safeguards, which are to be made available to the Government of the Commonwealth of Australia or any person under its jurisdiction by the Government of the United

States or any person under its jurisdiction, or which are to use, fabricate or process any of the following materials so made available : source material, special nuclear material, moderator material, or any other material designated by the United States Commission ;

2. With respect to any source or special nuclear material made available to the Government of the Commonwealth of Australia or any person under its jurisdiction by the Government of the United States or any person under its jurisdiction and any source or special nuclear material utilized in, recovered from, or produced as a result of the use of any of the following materials, equipment, or devices so made available :

- (i) source material, special nuclear material, moderator material, or other material designated by the United States Commission,
- (ii) reactors,
- (iii) any other equipment or device designated by the United States Commission as an item to be made available on the condition that the provision of this subparagraph A2 will apply,

- (a) to require the maintenance and production of operating records and to request and receive reports for the purpose of assisting in ensuring accountability for such materials; and
- (b) to require that any such material in the custody of the Government of the Commonwealth of Australia or any person under its jurisdiction be subject to all of the safeguards provided for in this Article and the guaranties set forth in Article XIV;

3. To require the deposit in storage facilities designated by the United States Commission of any of the special nuclear material referred to in subparagraph A2 of this Article which is not currently utilized for civil purposes in Australia and which is not purchased pursuant to Article VII, Paragraph E (a) of this Agreement, transferred pursuant to Article VII, Paragraph E (b) of this Agreement, or otherwise disposed of pursuant to an arrangement mutually acceptable to the Parties;

4. To designate, after consultation with the Government of the Commonwealth of Australia, personnel who, accompanied, if either Party so requests, by personnel designated by the Government of the Commonwealth of Australia, shall have access in Australia to all places and data necessary to account for the source and special nuclear materials which are subject to subparagraph A2 of this Article to determine whether there is compliance with this Agreement and to make such independent measurements as may be deemed necessary;

5. In the event of noncompliance with the provisions of this Article or the guaranties set forth in Article XIV and the failure of the Government of the Commonwealth of Australia to carry out the provisions of this Article within a reasonable time, to suspend or terminate this Agreement and require the return of any materials, equipment, and devices referred to in subparagraph A2 of this Article;

6. To consult with the Government of the Commonwealth of Australia in the matter of health and safety.

B. The Government of the Commonwealth of Australia undertakes to facilitate the application of the safeguards provided for in this Article.

Article XIV

A. The Government of the Commonwealth of Australia guarantees that :

1. The security safeguards and standards prescribed by the applicable security arrangements between the United States Commission and the Australian Commission will be maintained with respect to all classified information and materials, including equipment and devices, exchanged under this Agreement.
2. No material, including equipment and devices, transferred to the Government of the Commonwealth of Australia or authorized persons under its jurisdiction by purchase or otherwise pursuant to this Agreement will be used for atomic weapons, or for research on or development of atomic weapons, or for any other military purpose.
3. No material, including equipment and devices, or any Restricted Data transferred to the Government of the Commonwealth of Australia or authorized persons under its jurisdiction pursuant to this Agreement will be transferred to unauthorized persons or beyond the jurisdiction of the Government of the Commonwealth of Australia, except as the United States Commission may agree to such a transfer to another nation, and then only if the transfer of the material or Restricted Data is within the scope of an agreement for cooperation between the United States and the other nation.

B. The Government of the United States of America guarantees that :

1. The security safeguards and standards prescribed by the applicable security arrangements between the United States Commission and the Australian Commission will be maintained with respect to all classified information and materials, including equipment and devices, exchanged under this Agreement.
2. No material, including equipment and devices, or any Restricted Data transferred to the Government of the United States or authorized persons

under its jurisdiction pursuant to this Agreement, will be transferred to unauthorized persons or beyond the jurisdiction of the Government of the United States of America, except as the Government of the Commonwealth of Australia may agree to such a transfer to another nation.

Article XV

The application or use of any information (including design drawings and specifications), material, equipment or device, exchanged or transferred between the Parties under this Agreement shall be the responsibility of the Party receiving it, and the other Party does not warrant the accuracy and completeness of such information and does not warrant the suitability of such information, material, equipment, or device for any particular use or application.

Article XVI

For purposes of this Agreement :

A. " United States Commission " means the United States Atomic Energy Commission.

B. " Australian Commission " means the Atomic Energy Commission of the Government of the Commonwealth of Australia.

C. " Parties " means the Government of the United States of America and the Government of the Commonwealth of Australia, including the United States Commission on behalf of the Government of the United States of America and the Australian Commission on behalf of the Government of the Commonwealth of Australia. " Party " means one of the above " Parties ".

D. " Atomic weapon " means any device utilizing atomic energy, exclusive of the means for transporting or propelling the device (where such means is a separable and divisible part of the device), the principal purpose of which is for use as, or for development of, a weapon, a weapon prototype, or a weapon test device.

E. " Byproduct material " means any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.

F. " Classified " means a security designation of " Confidential " or higher applied, under the laws and regulations of either the Government of the United States or the Government of the Commonwealth of Australia, to any data, information, materials, services or any other matter, and includes " Restricted Data ".

G. " Equipment and devices " and " equipment or device " means any instrument, apparatus, or facility and includes any facility, except an atomic

weapon, capable of making use of or producing special nuclear material, and component parts thereof.

H. "Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, government agency or government corporation but does not include the Parties to this Agreement.

I. "Reactor" means an apparatus, other than an atomic weapon, in which a self-supporting fission chain reaction is maintained by utilizing uranium, plutonium, or thorium, or any combination of uranium, plutonium, or thorium.

J. "Restricted Data" means all data concerning (1) design, manufacture, or utilization of atomic weapons; (2) the production of special nuclear material; or (3) the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the category of Restricted Data by the appropriate authority.

K. "Source material" means (1) uranium, thorium, or any other material which is determined by the United States Commission or the Government of the Commonwealth of Australia to be source material or (2) ores containing one or more of the foregoing materials, in such concentration as the United States Commission or the Government of the Commonwealth of Australia may determine from time to time.

L. "Special nuclear material" means (1) plutonium, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the United States Commission or the Government of the Commonwealth of Australia determines to be special nuclear material; or (2) any material artificially enriched by any of the foregoing.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed pursuant to duly constituted authority.

DONE at Washington in duplicate this twenty-second day of June, 1956.

For the Government of the United States of America :

Walter S. ROBERTSON

Assistant Secretary of State for Far Eastern Affairs

W. F. LIBBY

Acting Chairman, United States Atomic Energy Commission

For the Government of the Commonwealth of Australia :

Percy C. SPENDER

Ambassador of Australia