# UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND and

# UNITED STATES OF AMERICA

Agreement for co-operation on the civil uses of atomic energy. Signed at Washington, on 15 June 1955

Exchange of notes constituting an agreement rectifying the above-mentioned Agreement. Washington, 20 October and 3 November 1955

Official text: English.

Registered by the United Kingdom of Great Britain and Northern Ireland on 23 February 1956.

# ROYAUME-UNI DE GRANDE-BRETAGNE ET D'IRLANDE DU NORD

et

# ÉTATS-UNIS D'AMÉRIQUE

Accord de coopération concernant l'utilisation de l'énergie atomique dans le domaine civil. Signé à Washington, le 15 juin 1955

Échange de notes constituant un accord portant rectification de l'Accord susmentionné. Washington, 20 octobre et 3 novembre 1955

Texte officiel anglais.

Enregistrés par le Royaume-Uni de Grande-Bretagne et d'Irlande du Nord le 23 février 1956.

No. 3161. AGREEMENT 1 BETWEEN THE GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND AND THE GOVERNMENT OF THE UNITED STATES OF AMERICA FOR CO-OPERATION ON THE CIVIL USES OF ATOMIC ENERGY. SIGNED AT WASHINGTON, ON 15 JUNE 1955

The Government of the United Kingdom of Great Britain and Northern Ireland, on its own behalf and on behalf of the United Kingdom Atomic Energy Authority, and the Government of the United States of America (including the United States Atomic Energy Commission);

Considering that they have for several years been engaged in atomic energy programmes within their respective countries and from the inception of these programmes have collaborated closely in certain fields;

Considering that the use of atomic energy for peaceful purposes is a major objective of each of these programmes;

Believing that mutual benefit would result from further co-operation between them; and

Recognising that for the present their main efforts in the field of atomic energy will be directed to defence but desiring also to promote the development of atomic energy for peaceful purposes;

Have agreed as follows:

# Article I

# Scope of Agreement

A.—Subject to the provisions of this agreement, the availability of material and personnel, and the applicable laws, regulations and licence requirements in force in their respective countries, the Parties shall assist each other in the achievement of the use of atomic energy for peaceful purposes. It is the intent of the Parties that such assistance shall be rendered on a reciprocal basis.

B.—The disposition and utilisation 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.

<sup>&</sup>lt;sup>1</sup> Came into force on 21 July 1955, in accordance with article XI.

- C.—The exchange of restricted data under this agreement shall be subject to the following limitations:
  - (i) It shall extend only to that which is relevant to current or projected programmes.
- (ii) Restricted data which is primarily of military significance shall not be exchanged.
- (iii) The development of submarine, ship, aircraft, and certain package power reactors is presently concerned primarily with their military uses. Accordingly, restricted data pertaining 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.
- (iv) Restricted data on specific experimental power, demonstration power, or power reactors will not be exchanged unless the reactor is currently in operation in the receiving country or is being considered seriously for construction by the receiving country as a source of power or as an intermediate step in a power production programme. There shall, however, be exchanged such general information, including restricted data, on design and characteristics of various types of reactors as is required to permit evaluation and comparison of their potential use in a power production programme.
- 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.—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 a military character.

# Article II

Exchange of Information between the Commission and the Authority

Subject to the provisions of Article I, classified information in the specific fields set out below and unclassified information shall be exchanged between

the Commission and the Authority 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. The following are the fields in which classified information shall be exchanged:

## A.—Reactors

- 1. Fields of exchange:
- (a) Reactor physics, including theory of and pertinent data relating to neutron bombardment reactions, neutron cross sections, criticality calculations, reactor kinetics, and shielding.
- (b) Reactor engineering—theory of and data relating to such problems as reactor stress and heat transfer analysis insofar as these are pertinent to the over-all design and optimisation of the reactor.
- (c) Properties of reactor materials—effects of operating conditions on the properties of reactor materials, including <u>fuel</u>, moderator and coolant.
- (d) Specification for reactor materials—final form specifications including composition, shape, and size, and special handling techniques of reactor materials including source material, special nuclear material, heavy water, reactor grade graphite, and zirconium.
- (e) Reactor components—general performance specifications of reactor components.
- (f) Over-all design and characteristics, and operational techniques and performance, of research, experimental power, demonstration power, and power reactors.
- 2. Detailed designs, detailed drawings and applied technology of reactors of the types referred to in subparagraph 1 (f) of this paragraph and of related components, equipment and devices in this field shall not be exchanged except as may be agreed.
- 3. The exchange of information under this paragraph shall include and be limited to information from the following sources and shall be accomplished in such a manner as to maintain a reciprocal basis of exchange:
- (a) Information developed by and for the Commission and information developed by and for the public and private utility groups in the United States with the assistance of the Commission;

(b) Information developed by and for the Authority and information developed by and for the United Kingdom Electricity Supply Authorities with the assistance of the Authority.

# B.—Uranium and Thorium

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.

# C.—Properties of Materials

Physical, chemical, and nuclear properties of all elements, compounds, alloys, mixtures, special nuclear material, byproduct material, other radioisotopes, and stable isotopes and their behaviour under all conditions.

# D.—Technology of Production and Utilisation of Materials

- 1. Technology of production and utilisation, from laboratory experimentation up to pilot plant operations but not including design and operation of pilot plants except as may be agreed, of all elements, compounds, alloys, mixtures, special nuclear material, byproduct material, other radioisotopes, and stable isotopes relevant to paragraphs A and E of this Article.
  - 2. This paragraph shall not be construed as including:
- (a) the exchange of restricted data pertaining to design, construction, and operation of production plants for the separation of U-235 from other uranium isotopes;
- (b) the exchange of restricted data on the design, construction, and operation of specific production plants for the separation of deuterium from the other isotope of hydrogen until such time as the Party wishing to receive the information shall determine that the construction of such plants is required; the Commission will, however, supply the Authority with heavy water as provided in Article III A and Article IV;
- (c) the exchange of restricted data pertaining to the design, construction, and operation of production plants for the separation of isotopes of any other element, except as may be agreed;
- (d) the exchange of restricted data pertaining to the underlying principles, theory, design, construction, and operation of facilities, other than reactors, capable of producing significant quantities of isotopes by means of nuclear reactions, except as may be agreed.

# E.—Health and Safety

The entire field of health and safety as related to any of the fields within which information is to be exchanged in accordance with the provisions of this Article;

in addition those problems of health and safety which affect the individual, his environment, and the civilian population as a whole and which arise from nuclear explosion (excluding such test data as would permit the determination of the yield of any specific weapon or nuclear device and excluding any information relating to the design or fabrication of any weapon or nuclear device).

# Article III

# RESEARCH MATERIALS AND RESEARCH FACILITIES

## A.—Research Materials

Materials of interest in connexion with any subject of agreed exchange of information as provided in Article II subject to the provisions of Article I, including source material, special nuclear material, byproduct material, other radioisotopes, and stable isotopes shall, except as provided in paragraph E of Article I, be exchanged for research purposes in such quantities and under such terms and conditions as may be agreed when such materials are not available commercially to the Party wishing to receive them.

# B.—Research Facilities

Under such terms and conditions as may be agreed, specialised research facilities and reactor testing facilities shall be made available for mutual use consistent with the limits of space, facilities, and personnel conveniently available, except that 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 IV

# MATERIALS FOR PURPOSES OTHER THAN RESEARCH

In connexion with any subject of agreed exchange of information as provided in Article II subject to the provisions of Article I, specific arrangements may be agreed between the Parties from time to time for the sale and purchase, under such terms and conditions as may be agreed, of quantities, greater than those required for research, of materials other than special nuclear materials.

# Article V

# Transfer of Equipment and Devices

With respect to any subject of agreed exchange of information as provided in Article II subject to the provisions of Article I, equipment and devices may be transferred from one Party to the other under such terms and conditions as may be agreed, except as provided in paragraph E of Article I. It is recognised that

such transfers will be subject to limitations which may arise from shortages of supplies or other circumstances existing at the time.

## Article VI

# PERMISSIVE ARRANGEMENTS FOR MATERIALS, INCLUDING EQUIPMENT AND DEVICES, AND SERVICES

A.—Within the fields specified in paragraph B of this Article, persons under the jurisdiction of one Party shall be permitted to make arrangements to transfer and export materials, including equipment and devices and rights owned by them therein, to and perform services for the other Party and such persons under its jurisdiction as are authorised by it to receive and possess such materials and utilise such services, provided that any classified information the disclosure of which would be involved shall fall within the fields specified in paragraph B and subject to:

- (1) the provisions of paragraph E of Article I;
- (2) applicable laws, regulations and licence 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 requires 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 I, may be communicated by the person furnishing the material or services 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 II;
- (2) the development, design, construction, operation, and use of research, experimental power, demonstration power, and power reactors;
- (3) the development, design, manufacture, and use of equipment and devices of use in connexion with the fields described in this paragraph.

# Article VII

### PATENTS

A.—With respect to any invention or discovery employing information which has been communicated under this agreement by one of the Parties to the other in accordance with Article II and made or conceived thereafter but during

the period of this agreement, and in which invention or discovery rights are owned by the Government of the United Kingdom or by the Government of the United States or any agency or corporation owned or controlled by either, each Party:

- (1) agrees to transfer and assign to the other Party all right, title, and interest in and to any such invention, discovery, patent application or patent in the country of that other Party, to the extent owned, subject to a royalty-free, non-exclusive, irrevocable licence for the governmental purposes of such other Party and for purposes of mutual defence;
- (2) shall retain all right, title, and interest in and to any such invention, discovery, patent application or patent in its own or third countries but shall, upon request of the other Party, grant to that other Party a royalty-free, non-exclusive, irrevocable licence for the governmental purposes of such other Party in such countries, including use in the production of materials in such countries for sale to the other Party by a contractor of such other Party; each Party may deal with any such invention, discovery, patent application or patent in its own country and all countries other than that of the other Party as it may desire, but in no event shall either Party discriminate against citizens of the country of the other Party in respect of granting any licence under the patents owned by it in its own or any other country;
- (3) waives any and all claims against the other Party for compensation, royalty or award as respects any such invention or discovery, patent application or patent and releases the other Party 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 IX.
- (3) Appropriate secrecy or prohibition orders shall be issued for the purpose of giving effect to this paragraph.

# Article VIII

## CLASSIFICATION POLICIES

Agreed classification policies shall be maintained with respect to all information, materials, equipment and devices exchanged under this agreement. The Parties intend to continue the present practice of consultation with each other on the classification of these matters.

# Article IX

# GUARANTIES

The Parties guarantee that:

- A.—All classified material, equipment, devices and classified information exchanged under this agreement shall be safeguarded in accordance with the applicable security arrangements between the Commission and the Authority.
- B.—No material, equipment or device transferred pursuant to this agreement shall be used for atomic weapons or for research on or development of atomic weapons, or for any other military purpose.
- C.—No material, equipment, device, or restricted data transferred pursuant to this agreement, and no equipment or device which would disclose any restricted data transferred pursuant to this agreement, shall be transferred to any unauthorised person or beyond the jurisdiction of the country receiving it, without the written consent of the Party to this agreement from which or by permission of which it was received. Such consent will not be given on behalf of the Government of the United States unless the transfer in respect of which it is requested is within the scope of an agreement for co-operation made in accordance with Section 123 of the United States Atomic Energy Act of 1954.

# Article X

#### DEFINITIONS

For the purposes of this agreement:

"Atomic weapon" means any device utilising 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.

"The Authority" means the United Kingdom Atomic Energy Authority.

"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 utilising special nuclear material.

"Classified" means a security designation of "Confidential" or higher applied under the laws and regulations of either the United Kingdom or the United States to any data, information, materials, services or any other matter. and includes "restricted data."

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

"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.

"Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, government agency or government corporation other than the Commission and the Authority.

"Pilot plant" means a device operated to acquire specific data for the design of a full-scale plant and which utilises the process, or a portion thereof, and the type of equipment which would be used in the full-scale production plant.

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

"Restricted data" means all data concerning (1) design, manufacture, or utilisation 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.

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

# Article XI

# PERIOD OF AGREEMENT

This agreement shall enter into force on the date 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.

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

Done at Washington, this fifteenth day of June, 1955, in two original texts.

For the Government of the United Kingdom of Great Britain and Northern Ireland:

R. H. SCOTT

For the Government of the United States of America:
Robert Murphy
Lewis L. Strauss

EXCHANGE OF NOTES CONSTITUTING AN AGREEMENT<sup>1</sup>
BETWEEN THE GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
AND THE GOVERNMENT OF THE UNITED STATES OF
AMERICA RECTIFYING THE AGREEMENT OF 15 JUNE
1955<sup>2</sup> FOR CO-OPERATION ON THE CIVIL USES OF
ATOMIC ENERGY. WASHINGTON, 20 OCTOBER AND
3 NOVEMBER 1955

I

Her Majesty's Ambassador at Washington to the United States Secretary of State

#### BRITISH EMBASSY

Washington, D.C., October 20, 1955

Sir,

I have the honour to refer to the Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the United States of America for Co-operation on the Civil Uses of Atomic Energy signed in Washington on June 15, 1955 <sup>2</sup> and to draw your Excellency's attention to an error in the wording of Article VII A. (1).

According to the present text of Article VII A. (1) each Party

"agrees to transfer and assign to the other Party all right, title, and interest in and to any such invention, discovery, patent application, or patent in the country of that other Party, to the extent owned, subject to a royalty-free, non-exclusive, irrevocable licence for the governmental purposes of such other Party and for purposes of mutual defence."

In the view of Her Majesty's Government, the provision in question should read as follows:

"agrees to transfer and assign to the other Party all right, title, and interest in and to any such invention, discovery, patent application, or patent in the country of that other Party, to the extent owned, subject to a royalty-free, non-exclusive, irrevocable licence for the governmental purposes of the transferring and assigning Party and for purposes of mutual defence."

<sup>&</sup>lt;sup>1</sup> Came into force on 3 November 1955 by the exchange of the said notes.

<sup>2</sup> See p. 74 of this volume.

If your Excellency confirms that the Government of the United States agree with the view of Her Majesty's Government, I have the honour to propose that the text of Article VII A. (1) shall be considered as corrected to read in the manner suggested above and that this Note, together with your reply to it, shall constitute an agreement to this effect.

I avail, &c.

(For the Ambassador)
J. H. A. WATSON

II

The United States Acting Secretary of State to Her Majesty's Ambassador at Washington

#### DEPARTMENT OF STATE

Washington, November 3, 1955

Excellency,

I have the honor to acknowledge the receipt of your Note of October 20, 1955, in which you drew attention to an error in the wording of Article VII A. (1) of the Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the United States of America for Cooperation on the Civil Uses of Atomic Energy signed in Washington on June 15, 1955.

In reply, I have the honor to inform you that the Government of the United States confirms the view of the Government of the United Kingdom of Great Britain and Northern Ireland that there is an error in the present text of Article VII A. (1) and agrees that the provision in question should be considered as corrected to read as suggested in your Note and that your Note, together with this reply to it, shall constitute an agreement to this effect.

Accept, &c.

(For the Acting Secretary of State)
Walworth Barbour