

15/6

No. 6338

**UNITED STATES OF AMERICA
and
INTERNATIONAL ATOMIC ENERGY AGENCY**

**Agreement (with annexes) for the application of Agency
safeguards to four United States reactor facilities.
Signed at Washington, on 30 March 1962**

Official text: English.

Registered by the United States of America on 15 October 1962.

**ÉTATS-UNIS D'AMÉRIQUE
et
AGENCE INTERNATIONALE DE L'ÉNERGIE ATOMIQUE**

**Accord (avec annexes) relatif à l'application des garanties
de l'Agence à quatre ensembles réacteurs aux États-
Unis. Signé à Washington, le 30 mars 1962**

Texte officiel anglais.

Enregistré par les États-Unis d'Amérique le 15 octobre 1962.

No. 6338. AGREEMENT¹ BETWEEN THE INTERNATIONAL ATOMIC ENERGY AGENCY AND THE GOVERNMENT OF THE UNITED STATES OF AMERICA FOR THE APPLICATION OF AGENCY SAFEGUARDS TO FOUR UNITED STATES REACTOR FACILITIES. SIGNED AT WASHINGTON, ON 30 MARCH 1962

WHEREAS the Government of the United States of America (hereinafter called the "United States"), in order to lend its support to the safeguards programme of the International Atomic Energy Agency (hereinafter called the "Agency") and to assist in the development of the programme by providing it with a field laboratory, has invited the Agency to apply its safeguards to certain United States reactor facilities which were established without any assistance from the Agency ;

WHEREAS the Board of Governors of the Agency (hereinafter called the "Board"), on 28 February 1962, has accepted such invitation ;

NOW, THEREFORE, the Agency and the United States agree as follows :

Article I

USE OF REACTORS FOR PEACEFUL PURPOSES

Section 1. During the term of this Agreement the United States will not use in such a way as to further any military purpose :

- (a) The four reactor facilities specified in Annex A² to this Agreement (hereinafter called the "reactor facilities"), or
- (b) Any special fissionable material produced by the use of the reactor facilities during the term of this Agreement.

Section 2. In the context of this Agreement, the facilities and materials specified in Section 1 will be considered not to be used in furtherance of any military purpose, regardless of what organization sponsors or conducts such use, when such facilities or materials are used :

- (a) In a recognized area of basic research, or
- (b) In work directed towards a specified peaceful application the results of which are to be published in open literature or will, on request, be made available to the Agency for possible publication.

¹ Came into force on 1 June 1962, in accordance with the provisions of article IX, section 19.

² See p. 60 of this volume.

Article II

APPLICATION OF AGENCY SAFEGUARDS

Section 3. The Agency will apply safeguards, in accordance with the principles of Article XII of its Statute¹ and with the provisions of this Agreement, to :

- (a) The reactor facilities ;
- (b) Special fissionable material produced in any of the reactor facilities during the term of this Agreement ;
- (c) Nuclear material while it is being processed or used in any of the reactor facilities ; and
- (d) Nuclear material while it is intermixed with nuclear material to which Agency safeguards are hereby applied.

Section 4. The application of Agency safeguards will be terminated :

- (a) At the termination of this Agreement ; or
- (b) When there are no conditions as listed in Section 3 that require application of Agency safeguards.

Section 5. Agency safeguards applied to nuclear material pursuant to this Agreement will be suspended while such material is transferred solely for the purpose of processing, reprocessing or testing to any other Member State or to any group of States or to an international organization under an agreement between the parties concerned approved by the Agency, or, under an arrangement approved by the Agency, to a facility within the United States of America to which safeguards are not applied, provided that :

- (a) The United States places under Agency safeguards, before such transfer and suspension, an amount of nuclear material at least equal, with due allowance for processing losses, to such transferred material and not otherwise subject to safeguards ; or
- (b) The quantities of such transferred material are not at any time in excess of :
 - (i) In the case of natural uranium or depleted uranium with a uranium-235 content of 0.5 per cent or greater—10 metric tons ;
 - (ii) In the case of depleted uranium with a uranium-235 content of less than 0.5 per cent—20 metric tons ;
 - (iii) In the case of thorium—20 metric tons ;
 - (iv) In the case of special fissionable material—1000 grammes of plutonium, uranium-233 or fully enriched uranium or its equivalent (calculated in

¹ United Nations, *Treaty Series*, Vol. 276, p. 3 ; Vol. 293, p. 359 ; Vol. 312, p. 427 ; Vol. 316, p. 387 ; Vol. 356, p. 378 ; Vol. 394, p. 276 ; Vol. 407, p. 263, and Vol. 416, p. 342.

accordance with the Appendix to the safeguards document) in the case of partially enriched uranium.

Section 6. The application of Agency safeguards suspended pursuant to Section 5 will remain suspended as long as the equivalent material placed under Agency safeguards pursuant to Section 5 (a) remains subject to Agency safeguards ; such application will finally terminate upon termination of this Agreement with respect to such material.

Section 7. Nuclear material not used and not intended for use in the reactor facilities may be stored at such facilities without Agency safeguards being applied to it provided that such material is identified and is segregated from material to which Agency safeguards are applied.

Section 8. Special fissionable material to which Agency safeguards are applied pursuant to Section 3 (b) or 5 (a) shall not be removed from the reactor facilities unless such safeguards are suspended as provided for in Section 5, or if agreement is reached about applying Agency safeguards to additional facilities.

Section 9. The procedures for the application of Agency safeguards are specified in Annex B¹ to this Agreement.

Article III

AGENCY INSPECTORS

Section 10. The provisions concerning Agency inspectors performing functions pursuant to this Agreement shall be those set forth in paragraphs 1 through 7, and paragraphs 9, 10, 12 and 14 of the inspectors document. However, in view of the purposes and scope of this Agreement, the places referred to in paragraph 9 of the inspectors document shall be the four reactor facilities specified in Annex A.

Section 11. In addition to any relevant provisions of the Statute and of Agency regulations, Agency inspectors shall also be bound by paragraph 41 of the safeguards document.

Article IV

USE OF INFORMATION BY THE AGENCY

Section 12. The Agency shall not publish nor communicate to any State, organization or person not on its staff any information obtained by it under this Agreement, except with the consent of the United States.

¹ See p. 64 of this volume.

Article V

FINANCE

Section 13. All expenses incurred by either party in connection with the implementation of this Agreement shall be borne by that party, except that the United States shall not be required to bear any expense for equipment, accommodations, or transport furnished pursuant to paragraph 6 of the inspectors document.

Article VI

LIABILITY

Section 14. The Agency shall indemnify the United States, its officials, agents, employees, contractors and others claiming through it for any injury or damage caused by the Agency or its inspectors, provided, however, that nothing in this Section shall deprive the Agency or its inspectors of any rights under Section 170 of the United States Atomic Energy Act of 1954, as amended, it being understood that the reactor facilities are covered by indemnification agreements pursuant to that Act.

Article VII

AGENCY SAFEGUARDS SYSTEM AND DEFINITIONS

Section 15. This Agreement shall be interpreted in the light of Agency document INFCIRC/26 (in this Agreement called the "safeguards document") in so far as it relates to the application of safeguards. Should the Agency make any changes in such document, or in Agency document GC(V)/INF/39, Annex (in this Agreement called the "inspectors document"), the parties to this Agreement may agree to apply such changed document.

Section 16. Except as otherwise provided in this Agreement, the definitions of the terms "Statute", "Board", "nuclear material", "reactor", "diversion" and "application of safeguards" in the safeguards document apply to the use of those terms in this Agreement. The term "Agency safeguards" as used in this Agreement means the measures prescribed in this Agreement, including those incorporated by reference, to prevent diversion of the facilities and materials specified in Section 1.

Article VIII

SETTLEMENT OF DISPUTES

Section 17. Any dispute arising out of the interpretation or application of this Agreement, which is not settled by negotiation or as may otherwise be agreed,

shall on the request of either party be submitted to an arbitral tribunal. The Agency and the United States shall each designate one arbitrator to the tribunal, and the two arbitrators so designated shall appoint a third, who shall be the Chairman of the tribunal. If within thirty days of the request for arbitration either party has not designated an arbitrator, either party may request the President of the International Court of Justice to appoint an arbitrator. The same procedure shall apply if within thirty days of the designation or appointment of the second arbitrator the third arbitrator has not been appointed. A majority of the members of the arbitral tribunal shall constitute a quorum, and all decisions shall be made by majority vote. The procedure of the arbitration shall be fixed by the tribunal. The decisions of the tribunal, including all rulings concerning procedure, jurisdiction and the division of the expenses of arbitration between the parties, shall be binding on both parties. The remuneration of the arbitrators shall be determined on the same basis as that of *ad hoc* judges of the International Court of Justice under Article 32, paragraph 4, of the Statute of the Court.

Section 18. Decisions of the Board involving the application of this Agreement shall, if they so provide, immediately be given effect by the United States pending the conclusion of any consultation, negotiation or arbitration that may be or may have been invoked with regard to the dispute.

Article IX

ENTRY INTO FORCE AND DURATION

Section 19. This Agreement shall enter into force, after signature by the duly authorized representative of the Agency and of the United States, on 1 June 1962.

Section 20. This Agreement shall remain in force for :

- (a) Two years with respect to the Brookhaven Graphite, Brookhaven Medical and the Piqua Reactor Facilities, specified in Annex A, and with respect to any nuclear material produced, processed or used in them ; and
- (b) One year with respect to the Experimental Boiling Water Reactor Facility, specified in Annex A, and with respect to any nuclear material produced, processed or used in it.

Section 21. The duration of this Agreement may be extended by mutual agreement of the parties.

DONE in duplicate in the English language, in Washington this 30th day of March 1962.

For the International Atomic Energy Agency :
Sigvard EKLUND

For the Government of the United States of America :
Harlan CLEVELAND

ANNEX A

THE REACTOR FACILITIES

The reactor facilities referred to in Section 1 of this Agreement are the following :

1. *The Brookhaven Graphite Research Reactor Facility*

(a) The Brookhaven Graphite Research Reactor Facility, located at Brookhaven National Laboratory, Upton, Suffolk County, Long Island, New York, is a nominal 20 thermal megawatt, graphite moderated, air cooled, 90 % enriched uranium fuelled reactor, owned by the United States Atomic Energy Commission (hereinafter called the "Commission") and operated by Associated Universities, Inc.

(b) For the purpose of this Agreement this reactor facility shall consist of : The reactor, reactor coolant system, shielding, control equipment and instrumentation, cold nuclear material storage vault, and irradiated nuclear material storage canal, which are located on the said Brookhaven premises in the buildings and structures numbered 701 Reactor Housing, 702 Reactor, 704 Fan House, 705 Stack, 708 Instrument House, and 709 Canal House. The laboratory building number 703, adjoining building 701, shall not be considered as a part of this reactor facility.

(c) These buildings and structures are further identified and described on Brookhaven National Laboratory Plot Plan No. A-606-6A (Section 2) prepared by H. K. Ferguson Co., which shows the location of the Brookhaven Graphite Research Reactor and adjacent facilities, dated 21 June 1948 and as revised 13 May 1949, a copy of which is on file with the Agency and the Commission and is hereby incorporated by reference and made a part of this Agreement.

2. *The Brookhaven Medical Research Reactor Facility*

(a) The Brookhaven Medical Research Reactor Facility, located at Brookhaven National Laboratory, Upton, Suffolk County, Long Island, New York, is a nominal 3 thermal megawatt, light water moderated and cooled, 90 % enriched uranium fuelled reactor, owned by the Commission and operated by Associated Universities, Inc.

(b) For the purpose of this Agreement this reactor facility shall consist of : The reactor, reactor coolant system, shielding, control equipment and instrumentation, and containment shell, which are located on the said Brookhaven National Laboratory premises in the structure designated as Block No. 10, which structure adjoins and is a part of the Medical Research Center Building numbered 490. Except for the structure designated as Block No. 10, the Medical Research Center Building shall not be considered as part of this facility.

(c) A detailed drawing locating the Medical Research Center is Brookhaven National Laboratory Site Plan number A-101, dated 15 March 1956, prepared by Eggers and Higgins, Architects. A detailed drawing indentifying the structure designated as Block

No. 10, is Brookhaven National Laboratory First Floor Plan, Block No. 10, numbered A-169, dated 26 March 1956 and revised 9 July 1956 prepared by Eggers and Higgins, Architects. Copies of these drawings are on file with the Agency and the Commission and are hereby incorporated by reference and made a part of this Agreement.

3. *The Experimental Boiling Water Reactor Facility*

(a) The Experimental Boiling Water Reactor Facility, located at Argonne National Laboratory, Lemont, Du Page County, Illinois, is a nominal 40 thermal megawatt, boiling water reactor presently fuelled with slightly enriched uranium elements and highly enriched uranium "spikes", owned by the Commission and operated by the Argonne National Laboratory.

(b) For the purpose of this Agreement, the reactor facility shall consist of : The reactor, reactor coolant system, shielding, control equipment and instrumentation, irradiated nuclear material storage canal, steam generating equipment, containment shell, and turbo generator, which are located on the said Argonne premises in the complex of structures designated as BER Facility Building No. 331. The complex of structures so designated is located within an area of approximately 500 ft. by 600 ft. within the Northwest Quarter (NW $\frac{1}{4}$) of the Southeast Quarter of Section 9, Township 37 N, Range 11, east of the 3rd Principal Meridian in Du Page County, Illinois, and more fully described as follows :

From a corner common to Sections 8, 9, 16 and 17, thence easterly along the southerly line of Section 9, a distance of approximately 3 000 feet to grid no. 33,000E thence northerly along grid no. 33,000E a distance of 2 000 feet to grid no. 52,000N, thence easterly along grid no. 52,000N a distance of 350 feet to the point of beginning. Thence northerly a distance of 200 feet, thence easterly a distance of 600 feet, thence southerly a distance of 500 feet, thence westerly a distance of 600 feet, thence northerly a distance of 300 feet to the point of beginning.

(c) This reactor facility is further identified and described on Argonne National Laboratory Property Plot BER Facility Building No. 331, which is numbered M-1 and dated 1 December 1954, as revised 2 March 1961. A copy of this drawing, which was prepared by Sargent and Lundy, Engineers, is on file with the Agency and the Commission and is hereby incorporated by reference and made a part of this Agreement.

4. *The Piqua Organic Moderated Reactor Facility*

(a) The Piqua Organic Moderated Reactor Facility, located at Piqua, Miami County, Ohio, is a nominal 45.5 thermal megawatt, organic cooled and moderated power reactor using slightly enriched uranium fuel, owned by the Commission and operated by the City of Piqua.

(b) For the purpose of this Agreement the reactor facility shall consist of : The reactor, reactor coolant system, shielding, control equipment and instrumentation, cold

nuclear material storage vault, irradiated nuclear material storage canal, steam generating equipment, and containment shell, which are located in the reactor building and auxiliary building ; said buildings being situated upon the following described tract of land located in the State of Ohio, County of Miami, Township of Springcreek, and being a part of the Northwest Quarter of Section 29, Range 11, Township 1, and more fully described as follows :

Starting at the Northwest corner of the Northwest Quarter of Section 29 in Springcreek Township ; thence South a distance of 35.00 feet to an iron spike, thence South 12°-43' West a distance of 596.15 feet to an iron spike, thence South 5°-59' East a distance of 422.88 feet to an iron spike ; thence South 15°-57' East a distance of 296.90 feet to an iron spike which is the point of beginning ; thence North 81°-14' East a distance of 41.56 feet to an iron spike ; thence South 31°-01' East a distance of 89.40 feet to an iron spike ; thence South 33°-23' East a distance of 673.45 feet to an iron pin ; thence South 41°-11' East a distance of 119.95 feet to an iron spike ; thence South 81°-11' West a distance of 347.70 feet to an iron spike ; thence North 12°-54' West a distance of 238.58 feet to an iron spike ; thence North 14°-24' West a distance of 551.33 feet to an iron spike ; thence North 15°-57' West a distance of 10.00 feet to an iron spike and place of beginning, containing 3.341 acres of land.

(c) This reactor facility is further identified and described as the "New Building" in Piqua Nuclear Power Facility Plot Plan No. 7537-79103, dated 9 December 1956, which was prepared by *Atomics International* and a copy of which is on file with the Agency and the Commission and is hereby incorporated by reference and made a part of this Agreement.

A N N E X B

PROCEDURES FOR THE APPLICATION OF AGENCY SAFEGUARDS

Agency safeguards will be applied to the reactor facilities, and to the nuclear materials in them to which Agency safeguards are applied pursuant to this Agreement, as follows :

1. The Agency, on the basis of the design information on the reactor facilities that has been submitted to it by the United States, hereby approves these designs in accordance with Article XII.A.1 of the Statute. In the event of a substantial change in the design of any of the reactor facilities, the United States shall advise the Agency in accordance with paragraph 42 of the safeguards document, and the Agency shall make its decision about approval of the revised design in accordance with paragraphs 42 and 43 of the safeguards document ; provided, however, the Agency shall not object to any change in the design of the reactor facilities so long as such change

- does not preclude (i) the use of the facilities in a manner consistent with the United States undertaking specified in Section 1, and (ii) the effective application of Agency safeguards to the reactor facilities.
2. The United States shall keep records on each of the reactor facilities in accordance with paragraphs 45 and 46 of the safeguards document and with systems established in accordance with paragraph 44 of the safeguards document.
 3. The United States shall submit routine and special reports on each of the reactor facilities in accordance with paragraphs 48 through 53 of the safeguards document and with systems established in accordance with paragraph 47 of the safeguards document. The first routine reports shall be submitted at the time this Agreement enters into force ; further routine reports shall be submitted at regular intervals with the following frequencies, which are subject to change in relation to the change in frequency of routine inspections, provided that they shall in no case exceed twelve per year :
 - (a) For the Brookhaven Graphite Research Reactor, 12 times a year ;
 - (b) For the Brookhaven Medical Research Reactor, 2 times a year ;
 - (c) For the Experimental Boiling Water Reactor, 4 times a year ;
 - (d) For the Piqua Organic Moderated Reactor, 2 times a year.
 4. Routine inspections, in accordance with paragraphs 54 through 57 and 65 of the safeguards document, may be made of each of the reactor facilities from the time this Agreement enters into force. The following maximum frequencies, which are subject to change in accordance with paragraph 65 of the safeguards document, shall govern initially :
 - (a) For the Brookhaven Medical Research Reactor, 2 times a year ;
 - (b) For the Experimental Boiling Water Reactor, 4 times a year ;
 - (c) For the Piqua Organic Moderated Reactor, 2 times a year.The Brookhaven Graphite Research Reactor Facility may be inspected at any time. Special inspections may be made as necessary in accordance with paragraphs 58 and 59 of the safeguards document.
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