No. 4852

INTERNATIONAL ATOMIC ENERGY AGENCY
and
JAPAN

Agreement (with annexes) for assistance by the International Atomic Energy Agency to the Government of Japan in supplying uranium for the research reactor project JRR-3. Signed at Vienna, on 24 March 1959

Official text: English.

Registered by the International Atomic Energy Agency on 24 August 1959.

AGENCE INTERNATIONALE DE L'ÉNERGIE ATOMIQUE
et
JAPON

Accord (avec annexes) relatif à l'aide accordée par l'Agence internationale de l'énergie atomique au Gouvernement japonais pour la fourniture d'uranium destiné au réacteur de recherche JRR-3. Signé à Vienne, le 24 mars 1959

Texte officiel anglais.

Enregistré par l'Agence internationale de l'énergie atomique le 24 août 1959.

No. 4852. AGREEMENT[1] BETWEEN THE INTERNATIONAL ATOMIC ENERGY AGENCY AND THE GOVERNMENT OF JAPAN FOR ASSISTANCE BY THE INTERNATIONAL ATOMIC ENERGY AGENCY TO THE GOVERNMENT OF JAPAN IN SUPPLYING URANIUM FOR THE RESEARCH REACTOR PROJECT JRR-3. SIGNED AT VIENNA, ON 24 MARCH 1959

PREAMBLE

Whereas the Government of Japan has requested, under the provisions of Article XI of the Statute of the International Atomic Energy Agency,[2] the assistance of the Agency in selling to it source material necessary for a project for research on atomic energy for peaceful purposes,

Whereas the Board of Governors of the International Atomic Energy Agency has considered and approved the project in accordance with the Statute of the Agency,

The International Atomic Energy Agency (hereinafter called " the Agency ") and the Government of Japan (hereinafter called " the Government "), with respect to the supply of materials and services to the project by the Agency pursuant to its Statute, and subject to all of the terms, conditions, and provisions contained therein, hereby have agreed as follows :

Article I

ALLOCATION OF MATERIAL

The Agency hereby allocates to the project described in Annex A[3] to this Agreement natural uranium metal (hereinafter called " the source material ") the detailed specifications of which are stated in Annex B.[3] At the request of the Government the Agency, within the framework of the present Agreement, may allocate to the project services and additional material, subject to the terms and conditions of Articles III and V of this Agreement unless otherwise agreed.

[1] Came into force on 24 March 1959, upon signature, in accordance with article VI.
[2] United Nations, *Treaty Series*, Vol. 276, p. 3; Vol. 293, p. 359; Vol. 312, p. 427, and Vol. 316, p. 387.
[3] See p. 336 of this volume.

Article II

TERMS AND CONDITIONS OF SALE

The Agency shall sell and the Government shall buy the source material, in a quantity between three thousand and three thousand two hundred kilogrammes, on the following terms and conditions:

(*a*) Within thirty days of the entry into force of this Agreement, the Government shall indicate the place in Canada at which it wishes to receive delivery of the source material. After consultation with the Government the Agency shall give the Government no less than four weeks' notice of the time it will be ready to deliver the source material at such place, and of the exact weight of the source material to be delivered. The Agency shall use its best efforts to ensure that it will be ready to deliver the source material on or before 1 November 1959.

(*b*) At the time specified by the Agency according to sub-paragraph (*a*) the Agency shall pass title to the source material by delivering the appropriate documents to a representative of the Government at a place to be designated by the Agency after consultation with the Government. At that time the Government shall pay the Agency the sum of Thirty-five and a half US dollars (US $35.50) per kilogramme of the source material and of any samples thereof supplied to the Government at its request, up to the limit of three thousand two hundred kilogrammes; this payment shall be the full charge due to the Agency under this Agreement. Within four days of the date on which the documents of title are delivered and the payment made, the Government shall take possession of the source material at the place specified by it according to sub-paragraph (*a*).

(*c*) Upon the entry into force of this Agreement, the Government shall forthwith notify the Agency as to the reasonable quantities of representative samples of the source material that the Government requires for testing, and shall also notify the Agency whether the Government desires to send representatives to observe the taking of such samples, and any measurements of danger coefficients. Such samples shall be taken at the same time as the Agency's own samples, and be provided by the Agency to the Government. The Agency shall permit the Government to send representatives to observe the taking of any samples, and any tests on or measurements of samples of the source material that are performed by the Agency or at the Agency's expense, and shall provide the Government with the results of such tests and measurements.

(*d*) If the Agency, despite its best efforts, should not fulfil any of its obligations as the seller of the source material, the damages to be paid by the Agency to the Government shall be limited to the amount that has been paid to the Agency under sub-paragraph (*b*), less the actual handling costs the Agency has incurred. Any claim for such damages must be communicated to the Agency within one year of the date on which title to the source material passes to the Government.

(*e*) If the chemical analysis or the measurement of the overall danger coefficients of the source material made by the Government indicates any impurity or danger coefficient in excess of the maximum allowable, the Agency may request analysis for such alleged impurity or impurities by the United Kingdom National Chemical Laboratory, Teddington, Middlesex, England, acting as umpire, or by any other laboratory agreed upon as umpire for such analysis, and may similarly request measurement of the danger coefficient by the United Kingdom Atomic Energy Research Establishment, Harwell, Berkshire, England, acting as umpire, or by any other laboratory agreed upon as umpire for such measurement. The results of such analysis and/or measurement by an umpire shall be final and binding. The cost of such analysis and/or measurement by an umpire shall be borne by the Agency if any impurity content or danger coefficient as determined by the umpire exceeds the maximum allowable; otherwise the cost of such analysis and/or measurement shall be borne by the Government.

Article III

AGENCY SAFEGUARDS

1. The Government agrees that any source material provided by the Agency under or within the framework of this Agreement, and any special fissionable material produced by its use, shall not be used in such a way as to further any military purpose. The Government further agrees that such source material shall not, without the prior consent in writing of the Agency, be used for any other purpose than the project described in Annex A to this Agreement, and that such source material and any special fissionable material produced by its use shall not be transferred outside Japan or beyond the Government's control except with the prior consent in writing of the Agency.

2. It is hereby agreed and specified that, until such time as may be otherwise agreed by the Agency and the Government subject to the Statute of the Agency, the safeguards, including those referring to health and safety, provided for in Article XII.A of the Statute of the Agency are relevant to the project. Subject to any relevant general regulations that may be adopted by the Board of Governors of the Agency, and subject to the above-mentioned statutory provisions, the details of the application of Agency safeguards shall be determined from time to time by the Board of Governors of the Agency, after consultation by the Director General of the Agency with the Government. The Government hereby agrees to comply with any requirements that the Agency may thus establish and to co-operate with the Agency in their application.

3. The Government agrees to abide by and to apply the health and safety standards and measures that were submitted by the Government for considera-

tion by the Agency in approving the project, and to make no additions to or changes in them, insofar as applicable to operations under this Agreement, unless the Agency has been previously informed of such additions or changes and has made no objection thereto. Consultations shall take place between the Agency and the Government if either of them considers that in the light of new developments additions or changes should be made in the above standards and measures.

4. In case of any question or dispute involving the application of Agency safeguards under this Article, decisions of the Board of Governors of the Agency shall, if they so provide, immediately be given effect and be complied with by the Government, pending the outcome of any procedure of consultation, negotiation, or arbitration that may be or may have been invoked with regard to that question or dispute.

Article IV

INFORMATION

1. The Government undertakes to facilitate the functions of the Agency concerning the exchange of information as provided in Article VIII of its Statute.

2. The Agency, in view of the degree of its participation in the present project, does not claim any right or interest in any inventions or discoveries, or any patents therein, arising from the project. The Agency may, however, be granted licences under any such patents upon terms and conditions to be agreed.

Article V

SETTLEMENT OF DISPUTES

Any question or dispute concerning the interpretation or application of this Agreement which is not settled by negotiation, except one for which a mode of settlement is provided in sub-paragraph (*e*) of Article II of this Agreement, shall, on the application of either the Agency or the Government, be submitted to an arbitral tribunal composed of three members, one designated by the Director General of the Agency, one designated by the Government, and the third, who shall preside, jointly designated by the first two. If the first two members should not agree on the designation of the third member within three months after the making of the application, he shall be designated by the President of the International Court of Justice. The decisions of the majority 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. Such decisions shall be implemented by them in accordance with their respective constitutional procedures. The remuneration of the members

of the tribunal 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.

Article VI

ENTRY INTO FORCE

This Agreement shall come into force upon signature by the Director General of the Agency and the duly authorized representative of the Government.

DONE in duplicate in the English language this 24th day of March, 1959, in Vienna.

For The International Atomic Energy Agency:
(*Signed*) Sterling COLE
Director General

For the Government of Japan:
(*Signed*) H. FURUUCHI
Governor from Japan

ANNEX A

DEFINITION OF THE PROJECT

The project to which this Agreement[1] relates is a natural uranium fuelled, heavy-water moderated and heavy-water cooled research reactor of ten megawatt thermal output, designated as JRR-3, and its associated facilities, to be constructed and operated by the Japan Atomic Energy Research Institute in its Tokai Laboratory, Japan.

ANNEX B

SPECIFICATIONS OF THE SOURCE MATERIAL

1. *Material.* Uranium metal, natural isotopic composition.
2. *Size.* The uranium metal will be supplied in forged billet form;
   Length: 50 cms;
   Cross-section: 15 cms × 15 cms with bevelled edges.
3. *Density.* Average: 18.95 gm/cc;
   Minimum: 18.9 gm/cc.

[1] See p. 328 of this volume.

4. *Grain size.* Maximum: less than 200 microns diameter;
Minimum: 50 microns diameter.

5. *Crystal orientation.* At random.

6. *Surface conditions.* The forged billets as supplied will be cleaned and pickled in 50% nitric acid to remove surface scale and oxide. Seams, slivers, and laps will be removed by surface conditioning. Inspection will be carried out prior to shipment to ensure that there will be no excessive flow lines, transverse cracks, side crevices, or split ends having a visible depth of greater than 0.5 cm. The metal as supplied will be suitable for rolling or other fabrication.

7. *Overall danger coefficient*[1]. For any billet: will not exceed 0.25%; average of all billets: will not exceed 0.20%.

8. *Chemical analysis* (impurities in ppm.)

	Maximum guaranteed for any ingot or billet		*Minimum guaranteed for any ingot or billet*	*Average of all ingots or billets*
Aluminium	20		10	15
Boron	0.2		0.1	0.15
Cadmium	0.1	less than	0.1	less than 0.1
Carbon	400		100	according to specific requirements
Chromium	20		10	12
Cobalt	1.0	less than	1.0	less than 1.0
Iron	100		65	80
Nickel	50		25	35
Nitrogen	40		20	30
Silicon } Total SiO_2	50		30	40
Hydrogen	10		5.0	8.0
Magnesium	30		15	20
Manganese	5.0		2.0	3.0

[1] The overall danger coefficient is expressed as a percentage and defined as the sum for all impurities of:

$$\frac{\dfrac{\text{Absorption cross section per atom of impurity}}{\text{Atomic weight of impurity}}}{\dfrac{\text{Absorption cross section per atom of uranium}}{\text{Atomic weight of uranium}}} \times 10^{-4} \times X \text{ ppm}$$

where X represents the parts per million (ppm) of the impurity.