



International Atomic Energy Agency
INFORMATION CIRCULAR

INF

IAEA - INFCIRC/453

August 1994

GENERAL Distr.
Original: ENGLISH

PROJECT AND SUPPLY AGREEMENT

**THE TEXT OF THE AGREEMENT OF 15 JANUARY 1993 BETWEEN
THE INTERNATIONAL ATOMIC ENERGY AGENCY AND
THE GOVERNMENT OF THE REPUBLIC OF INDONESIA AND THE
GOVERNMENT OF THE UNITED STATES OF AMERICA CONCERNING
THE TRANSFER OF ENRICHED URANIUM FOR THE FABRICATION
OF TARGETS FOR THE PRODUCTION OF RADIOISOTOPES
FOR MEDICAL PURPOSES**

1. The text¹ of the Project and Supply Agreement, which was approved by the Agency's Board of Governors on 4 December 1992 and concluded on 15 January 1993 between the Agency and the Governments of the Republic of Indonesia and the United States of America for the transfer of enriched uranium for the fabrication of targets for the production of radioisotopes for medical purposes is reproduced herein for the information of all Members.
2. The agreement entered into force on 15 January 1993, pursuant to Article XII.1.

¹ The footnotes to the text have been added in the present information circular.

PROJECT AND SUPPLY AGREEMENT

AGREEMENT BETWEEN THE INTERNATIONAL ATOMIC ENERGY AGENCY AND THE GOVERNMENT OF THE REPUBLIC OF INDONESIA AND THE GOVERNMENT OF THE UNITED STATES OF AMERICA CONCERNING THE TRANSFER OF ENRICHED URANIUM FOR THE FABRICATION OF TARGETS FOR THE PRODUCTION OF RADIOISOTOPES FOR MEDICAL PURPOSES

WHEREAS the Government of the Republic of Indonesia (hereinafter called "Indonesia"), desiring to continue a project for the production of radioisotopes for medical purposes, has requested the assistance of the International Atomic Energy Agency (hereinafter called the "Agency") in securing special fissionable material therefor;

WHEREAS Indonesia on 14 July 1980 concluded with the Agency an Agreement for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (hereinafter called the "Treaty Safeguards Agreement")² which entered into force on that date;

WHEREAS Indonesia has made arrangements with a supplier (hereinafter called the "supplier") for the delivery of highly enriched uranium of United States origin in the form of metal for the fabrication of isotope production targets;

WHEREAS under the Agreement for Co-operation between the Agency and the Government of the United States of America, concluded on 11 May 1959, as amended (hereinafter called the "Co-operation Agreement"),³ the Government of the United States of America (hereinafter called the "United States"), undertook to make available to the Agency pursuant to the Statute of the Agency (hereinafter called the "Statute") certain quantities of special fissionable material, and also undertook, subject to various applicable provisions and licence requirements, to permit, upon request of the Agency, persons under the jurisdiction of the United States to make arrangements to transfer and export materials, equipment or facilities for members of the Agency in connection with an Agency-assisted project;

² Reproduced in document INFCIRC/283.

³ Reproduced in document INFCIRC/5, Part III and INFCIRC/5/Mods.1 and 2.

WHEREAS, pursuant to the Co-operation Agreement, the Agency and the United States on 14 June 1974 concluded a Master Agreement governing sales of source, by-product and special nuclear materials for research purposes (hereinafter called the "Master Agreement");⁴ and

WHEREAS the Board of Governors of the Agency (hereinafter called the "Board") approved the Agency's assistance for the Project on 4 December 1992;

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

ARTICLE I

Definition of the Project

1. The Project to which this Agreement relates consists of medical isotope production, including fabrication of targets, target irradiation and chemical reprocessing of the irradiated targets for the recovery of medical molybdenum-99, xenon-133 and iodine-131 by the Batan Radioisotope Production Centre at Serpong (hereinafter called the "Centre").
2. This Agreement shall apply, mutatis mutandis, to any additional assistance provided by the Agency to Indonesia for the Project.
3. Except as specified in this Agreement, neither the Agency nor the United States assumes any obligations or responsibilities insofar as the Project is concerned.

ARTICLE II

Supply of enriched uranium

1. The Agency, pursuant to Article IV of the Co-operation Agreement, shall request the United States to permit the transfer and export to Indonesia of

⁴ Reproduced in document INFCIRC/210.

1,020 grams of enriched uranium, containing a maximum of 93.3 percent in U-235 for the fabrication of radioisotope production targets (hereinafter called the "supplied material").

2. The United States, subject to the provisions of the Co-operation Agreement including Section A of the Annex and the Master Agreement and to the issuance of any required licences or permits, shall transfer to the Agency and the Agency shall transfer to Indonesia the supplied material.

3. The particular terms and conditions for the transfer of the supplied material, including charges for or connected with such material, a schedule of deliveries and shipping instructions, shall be specified in a contract to be concluded between Indonesia and the supplier (hereinafter called the "Contract") in implementation of this Agreement. All arrangements for the transfer of the supplied material shall be the responsibility of Indonesia and the supplier. Prior to the export of any part of such material, Indonesia shall notify the Agency of the amount thereof and of the date, place and method of shipment.

4. The supplied material and any special fissionable material produced through its use, including subsequent generations of produced special fissionable material shall be used exclusively by and remain at the Centre, unless the Parties hereto otherwise agree.

5. The supplied material and any special fissionable material produced through its use, including subsequent generations of produced special fissionable material, shall be stored or reprocessed or otherwise altered in form or content only under conditions and in facilities acceptable to the Agency, Indonesia and the United States. Such materials shall not be further enriched unless the Agency, Indonesia and the United States agree to the amendment of the Project and Supply Agreement for that purpose.

ARTICLE III

Payment

1. Indonesia shall pay the supplier all charges for or connected with the supplied material in accordance with the provisions of the Contract.
2. In extending their assistance for the Project, neither the Agency nor the United States assumes any financial responsibility in connection with the transfer of the supplied material by the United States to Indonesia.

ARTICLE IV

Transport, handling and use

Indonesia shall take all appropriate measures to ensure the safe transport, handling and use of the supplied material. Neither the United States nor the Agency warrants the suitability or fitness of the supplied material for any particular use or application or shall at any time bear any responsibility towards Indonesia or any person for any claims arising out of the transport, handling and use of the supplied material.

ARTICLE V

Safeguards

1. Indonesia undertakes that the Centre, the supplied material and any special fissionable material used in or produced through their use, including subsequent generations of produced special fissionable material, shall not be used for the manufacture of any nuclear weapon or any nuclear explosive device, or for research on or the development of any nuclear weapon or any nuclear explosive device or to further any military purpose.
2. The safeguards rights and responsibilities of the Agency provided for in Article XII.A of the Statute are relevant to the Project and shall be

implemented and maintained with respect to the Project. Indonesia shall co-operate with the Agency to facilitate the implementation of the safeguards required by this Agreement.

3. Agency safeguards referred to in this Article shall, for the duration of this Agreement, be implemented pursuant to the Treaty Safeguards Agreement.

4. Article XII.C of the Statute shall apply with respect to any non-compliance by Indonesia with the provisions of this Agreement.

5. Upon request of the United States, Indonesia shall inform the United States of the status of all inventories of any materials required to be safeguarded pursuant to this Agreement. If the United States so requests, Indonesia shall permit the Agency to inform the United States of the status of all such inventories to the extent such information is available to the Agency.

ARTICLE VI

Safety standards and measures

The safety standards and measures specified in Annex A to this Agreement shall apply to the Project.

ARTICLE VII

Agency inspectors

The relevant provisions of the Treaty Safeguards Agreement shall apply to Agency inspectors performing functions pursuant to this Agreement.

ARTICLE VIII

Scientific information

In conformity with Article VIII.B of the Statute, Indonesia shall make available to the Agency without charge all scientific information developed as a result of the assistance provided by the Agency for the Project.

ARTICLE IX

Languages

All reports and other information required for the implementation of this Agreement shall be submitted to the Agency in one of the working languages of the Board.

ARTICLE X

Physical protection

1. Indonesia undertakes that adequate physical protection measures shall be maintained with respect to supplied facilities, material and any special fissionable material used in or produced through the use thereof, including subsequent generations of produced special fissionable material.
2. The Parties to this Agreement (hereinafter called the "Parties") agree to the levels for the application of physical protection set forth in Annex B to this Agreement, which levels may be modified by mutual consent of the Parties without amendment to this Agreement. Indonesia shall maintain adequate physical protection measures in accordance with such levels. These measures shall as a minimum provide protection comparable to that set forth in Agency document INFCIRC/225/Rev.2, entitled "The Physical Protection of Nuclear Material", as it may be revised from time to time.

ARTICLE XI

Settlement of disputes

1. Any decision of the Board concerning the implementation of Article V, VI or VII, if the decision so provides, shall be given effect immediately by the Agency and Indonesia pending the final settlement of any dispute.

2. Any dispute arising out of the interpretation or implementation of this Agreement, which is not settled by negotiation or as may otherwise be agreed by the Parties concerned, shall on the request of any such Party be submitted to an Arbitral Tribunal composed as follows: each Party to the dispute shall designate one arbitrator and the arbitrators so designated shall by unanimous decision elect an additional arbitrator, who shall be the Chairman. If the number of arbitrators so selected is even, the Parties to the dispute shall by unanimous decision elect an additional arbitrator. If within thirty (30) days of the request for arbitration any Party to the dispute has not designated an arbitrator, any other Party to the dispute may request the President of the International Court of Justice to appoint the necessary number of arbitrators. The same procedure shall apply if within thirty (30) days of the designation or appointment of the arbitrators, the Chairman or any required additional arbitrator has not been elected. A majority of the members of the Arbitral Tribunal shall constitute a quorum, and all decisions shall be made by majority vote. The arbitral procedures shall be established by the Tribunal, whose decisions, including all rulings concerning its constitution, procedure, jurisdiction and the division of the expenses of arbitration between the Parties to the dispute, shall be final and binding on all the Parties concerned. The remuneration of the arbitrators shall be determined on the same basis as that of ad hoc judges of the International Court of Justice.

ARTICLE XII

Entry into force and duration

1. This Agreement shall enter into force upon signature by the authorized representatives of Indonesia and the United States and by or for the Director General of the Agency.

2. This Agreement shall continue in effect so long as any material, equipment or facility which was ever subject to this Agreement remains in the territory of Indonesia or under its jurisdiction or control anywhere, or until such time as the Parties agree that such material, equipment or facility is no longer usable for any nuclear activity relevant from the point of view of safeguards.

DONE in Vienna, on the fifteenth day of January 1993, in triplicate in the English language.

For the INTERNATIONAL ATOMIC ENERGY AGENCY:

(signed) Hans Blix

For the GOVERNMENT OF THE REPUBLIC OF INDONESIA:

(signed) J. P. Louhanapessy

For the GOVERNMENT OF THE UNITED STATES OF AMERICA:

(signed) Jane Becker

ANNEX A

SAFETY STANDARDS AND MEASURES

1. The safety standards and measures applicable to the Project shall be those defined in Agency document INFCIRC/18/Rev.1 (hereinafter called the "Safety Document") or in any further revision thereof and as specified below.

2. Indonesia shall, inter alia, apply the Basic Safety Standards for Radiation Protection⁵ (IAEA Safety Series No. 9, Edition 1982, jointly sponsored by IAEA, WHO, ILO and OECD/NEA) and the relevant provisions of the Agency's Regulations for the Safe Transport of Radioactive Materials⁶ (IAEA Safety Series No. 6, 1985 Edition, as amended 1990) as they may be revised from time to time, and as far as possible Indonesia shall apply them also to any shipment of the supplied materials and radioisotopes produced with the supplied reactor outside the jurisdiction of Indonesia. Indonesia shall, inter alia, ensure safety conditions as recommended in the Agency's Code of Practice on the Safe Operation of Research Reactors and Critical Assemblies⁷ (IAEA Safety Series No. 35, 1984 Edition) and other relevant IAEA Safety Standards.

3. Indonesia shall arrange for the submission to the Agency, at least thirty (30) days prior to the proposed transfer of any part of the supplied material to the jurisdiction of Indonesia, of a detailed safety analysis report containing the information specified in paragraph 4.7 of the Safety Document and as recommended in the relevant sections of the Agency's Safety Series No. 35, 1984 Edition, including particular reference to the following types of operations, to the extent that the relevant information is not yet available to the Agency:

- (a) Receipt and handling of the supplied material;
- (b) Loading of the supplied material into the reactor;
- (c) Start-up and pre-operational testing of the reactor with the supplied material;

⁵ IAEA Safety Series No.9, 1982 Edition (STI/PUB/607).

⁶ Ibid. No. 6, 1985 Edition (as amended 1990)(STI/PUB/866).

⁷ Ibid. No. 35, 1984 Edition (STI/PUB/667).

- (d) Experimental program and procedures involving the reactor;
- (e) Unloading of the supplied material from the reactor; and
- (f) Handling and storage of the supplied material after unloading from the reactor.

4. Once the Agency has determined that the safety measures provided for the Project are adequate, the Agency shall give its consent for the start of the proposed operations. Should Indonesia desire to make substantial modifications to the procedures with respect to which information has been submitted, or to perform any operations with the reactor or the supplied material with respect to which operations no information has been submitted, Indonesia shall submit to the Agency all relevant information as specified in paragraph 4.7 of the Safety Document, on the basis of which the Agency may require the application of additional safety measures in accordance with paragraph 4.8 of the Safety Document. Once Indonesia has undertaken to apply the additional safety measures requested by the Agency, the Agency shall give its consent for the modifications or operations envisaged by Indonesia.

5. Indonesia shall arrange for submission to the Agency, as appropriate, of the reports specified in paragraphs 4.9 and 4.10 of the Safety Document.

6. The Agency may, in agreement with Indonesia, send safety missions for the purpose of providing advice and assistance to Indonesia in connection with the application of adequate safety measures to the Project, in accordance with paragraphs 5.1 and 5.3 of the Safety Document. Moreover, special safety missions may be arranged by the Agency in the circumstances specified in paragraph 5.2 of the Safety Document.

7. Changes in the safety standards and measures laid down in this Annex may be made by mutual consent between the Agency and Indonesia in accordance with paragraphs 6.2 and 6.3 of the Safety Document.

ANNEX B

LEVELS OF PHYSICAL PROTECTION

Pursuant to Article X, the agreed levels of physical protection to be ensured by the competent national authorities in the use, storage and transportation of nuclear material listed in the attached table shall as a minimum include protection characteristics as follows:

CATEGORY III

Use and storage within an area to which access is controlled.

Transportation under special precautions including prior arrangements between sender, recipient and carrier, and prior agreement between entities subject to the jurisdiction and regulation of the supplier State and the recipient State, respectively, in case of international transport, specifying time, place and procedures for transferring transport responsibility.

CATEGORY II

Use and storage within a protected area to which access is controlled, i.e. an area under constant surveillance by guards or electronic devices, surrounded by a physical barrier with a limited number of points of entry under appropriate control, or any area with an equivalent level of physical protection.

Transportation under special precautions including prior arrangements between sender, recipient and carrier, and prior agreement between entities subject to the jurisdiction and regulation of the supplier State and the recipient State, respectively, in case of international transport, specifying time, place and procedures for transferring transport responsibility.

CATEGORY I

Materials in this category shall be protected with highly reliable systems against unauthorized use as follows:

Use and storage within a highly protected area, i.e. a protected area as defined for Category II above, to which, in addition, access is restricted to persons whose trustworthiness has been determined, and which is under surveillance by guards who are in close communication with appropriate response forces. Specific measures taken in this context should have as their objective the detection and prevention of any assault short of war, unauthorized access or unauthorized removal of material.

Transportation under special precautions as identified above for transportation of Category II and III materials and, in addition, under constant surveillance by escorts and under conditions which assure close communication with appropriate response forces.

TABLE: CATEGORIZATION OF NUCLEAR MATERIAL^c

Material	Form	Category		
		I	II	III
1. Plutonium ^{a,f}	Unirradiated ^b	2 kg or more	Less than 2 kg but more than 500 g	500 g or less ^c
2. Uranium-235 ^d	Unirradiated ^b	5 kg or more	Less than 5 kg but more than 1 kg	1 kg or less ^c
	– uranium enriched to 20% ²³⁵ U or more	–	10 kg or more	Less than 10 kg ^c
	– uranium enriched to 10% ²³⁵ U but less than 20%	–	–	10 kg or more
3. Uranium-233	Unirradiated ^b	2 kg or more	Less than 2 kg but more than 500 g	500 g or less ^c

^a All plutonium except that with isotopic concentration exceeding 80% in plutonium-238.

^b Material not irradiated in a reactor or material irradiated in a reactor but with a radiation level equal to or less than 100 rads/hour at one meter unshielded.

^c Less than a radiologically significant quantity should be exempted.

^d Natural uranium, depleted uranium and thorium and quantities of uranium enriched to less than 10% not falling in Category III should be protected in accordance with prudent management practice.

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

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