



International Atomic Energy Agency

## INFORMATION CIRCULAR

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THE TEXTS OF THE INSTRUMENTS CONCERNING THE AGENCY'S ASSISTANCE  
TO INDONESIA FOR THE CONTINUATION OF A RESEARCH REACTOR PROJECT

A Third Supply Agreement and an Amendment  
to the Project Agreement

1. As a sequel to the assistance with the Agency has provided to the Government of Indonesia for the continuation of a research reactor project [1], a Third Supply Agreement has been concluded between the Agency and the Governments of Indonesia and the United States of America. In this connection, an Amendment to the Project Agreement of 19 December 1969 [2] has been concluded between the Agency and the Government of Indonesia.
2. Both the Third Supply Agreement and the Amendment to the Project Agreement entered into force on 7 December 1979, pursuant to Article VI and IV respectively. The texts [3] of both instruments are reproduced in this document for the information of all Members.

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[1] Pursuant to the agreements reproduced in documents INFCIRC/136, INFCIRC/136/Add.1 and INFCIRC/136/Add.1/Mod.1.

[2] Reproduced in document INFCIRC/136, part II.

[3] The footnotes to the texts have been added in the present information circular.

## I. THIRD SUPPLY AGREEMENT

### AGREEMENT BETWEEN THE INTERNATIONAL ATOMIC ENERGY AGENCY AND THE GOVERNMENTS OF INDONESIA AND THE UNITED STATES OF AMERICA FOR THE TRANSFER OF ENRICHED URANIUM FOR A RESEARCH REACTOR IN INDONESIA

WHEREAS the International Atomic Energy Agency (hereinafter called the "Agency") and the Government of Indonesia (hereinafter called "Indonesia") on 19 December 1969 signed an agreement (hereinafter called the "Project Agreement") for assistance by the Agency to Indonesia in continuing a training and research project for peaceful purposes relating to the Triga Mark II research reactor (hereinafter called the "reactor") at the Bandung Reactor Centre in Bandung, Republic of Indonesia;

WHEREAS the Agency, Indonesia, and the United States Atomic Energy Commission, acting on behalf of the Government of the United States of America (hereinafter called the "United States"), on 19 December 1969 and 14 September 1972 concluded contracts, as amended, for the transfer of enriched uranium for the reactor [4], pursuant to which supplies of enriched uranium were delivered to Indonesia;

WHEREAS Indonesia, in connection with the Project Agreement, has requested the assistance of the Agency in securing from the United States an additional supply of enriched uranium for the reactor;

WHEREAS the Board of Governors of the Agency (hereinafter called the "Board") approved the additional assistance for the project on 30 November 1979;

WHEREAS Indonesia and the United States, being Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (hereinafter called the "Treaty") [5], desire to promote universal adherence to the Treaty;

WHEREAS Indonesia and the United States affirm support of the objectives of the Treaty and the Statute of the Agency and, in this regard, have demonstrated their commitment to ensuring that the international development and use of nuclear energy for peaceful purposes are carried out under arrangements which, to the maximum extent, will prevent the proliferation of nuclear explosive devices;

WHEREAS Indonesia has made arrangements with a manufacturer (hereinafter called the "manufacturer") for the fabrication of enriched uranium into additional fuel elements for the reactor;

WHEREAS, under the Agreement for Co-operation between the Agency and the United States, concluded on 11 May 1959, as amended (hereinafter called the "Co-operation Agreement") [6] the United States undertook to make available to the Agency pursuant to its Statute certain quantities of special fissionable material, and also undertook, subject to applicable provisions of the Co-operation Agreement 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 project; and

[4] Reproduced in documents INFCIRC/136, part I, INFCIRC/136/Add.1 and INFCIRC/136/Add.1/Mod.1.

[5] Reproduced in document INFCIRC/140.

[6] Reproduced in documents INFCIRC/5, part III, INFCIRC/5/Mod.1 and INFCIRC/5/Mod.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") [7];

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

## ARTICLE I

### 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 up to a total net amount of 3647.67 grams of uranium-235 contained in 18 330 grams of uranium enriched to approximately 19.90 per cent (hereinafter called the "supplied material"), contained in fuel elements for use in the reactor.
2. The United States, subject to the provisions of the Co-operation Agreement 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 all charges for or connected with such material, a schedule of deliveries and shipping instructions, shall be specified in a supplemental contract to the Master Agreement, to be concluded between the Agency, Indonesia and the United States (hereinafter called the "Supplemental Contract").
4. The supplied material and any nuclear material produced through its use, including subsequent generations of produced special fissionable material, shall be used exclusively by and remain at the Bandung Reactor Centre in Bandung, Republic of Indonesia, unless otherwise agreed by the Parties to this Agreement (hereinafter called the "Parties").
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 Indonesia and the United States. Such material shall not be further enriched unless Indonesia and the United States agree.

## ARTICLE II

### Shipment of the Supplied Material

All arrangements for the export from the United States of America of the supplied material shall be the responsibility of Indonesia and the manufacturer. Prior to the export of such material, Indonesia shall notify the Agency of the amount thereof and of the date, place and method of shipment.

## ARTICLE III

### Payment

1. Indonesia shall pay the manufacturer all charges for or connected with the fabrication of the supplied material into fuel elements, in accordance with the arrangements made between Indonesia and the manufacturer.

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[7] Reproduced in document INFCIRC/210.



2. Indonesia shall pay the United States all charges for or connected with the supplied material in accordance with the provisions of the Supplemental Contract, except as provided for in paragraph 4 of this Article.

3. In extending their assistance for the project, neither the Agency nor the United States assumes any financial responsibility in connection with the transfers of the supplied material by the United States to Indonesia.

4. In order to assist and encourage research on peaceful uses or for medical therapy, the United States has in each calendar year offered to distribute to the Agency, free of charge, special fissionable material of a value of up to US \$50 000 at the time of transfer, to be supplied from the amounts specified in Article II.A of the Co-operation Agreement. If the United States finds the project to which this Agreement relates eligible, it shall decide by the end of the calendar year in which this Agreement is concluded on the extent, if any, to which the project shall benefit by the gift offer, and shall promptly notify the Agency and Indonesia of that decision. The payments provided for in paragraph 2 of this Article shall be reduced by the value of any gift material thus made available or, if payments for such material have been made by Indonesia, the United States shall credit Indonesia with the value of such material.

#### ARTICLE IV

##### Transport, Handling and Use

Indonesia and the United States 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 or use of the supplied material.

#### ARTICLE V

##### Safeguards

1. Indonesia undertakes that none of the following materials shall 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 for any other military purpose:

(a) The supplied material;

(b) Any special fissionable material produced through the use of the supplied material, including subsequent generations of produced special fissionable material.

2. The Agency shall apply safeguards to the nuclear material referred to in paragraph 1 above in accordance with the provisions of the Project Agreement.

3. Indonesia shall permit the Agency and the Agency undertakes to inform the United States of the status of all inventories of any materials required to be safeguarded under this Agreement, should the United States so request.

#### ARTICLE VI

##### Safety Standards and Measures

The safety standards and measures specified in the Project Agreement shall, to the extent relevant, apply to the nuclear material subject to this Agreement.

## ARTICLE VII

### Physical Protection

1. Indonesia undertakes that adequate physical protection shall be maintained with respect to the supplied material and any special fissionable material used in or produced through the use of the reactor or the supplied material.

2. The Parties agree to the levels for the application of physical protection set forth in the Annex to this Agreement, which levels may be modified by mutual consent of the Parties without amendment to this Agreement. Indonesia shall maintain adequate physical security 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.1, entitled "The Physical Protection of Nuclear Material", as it may be revised from time to time.

## ARTICLE VIII

### Settlement of Disputes

1. 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.

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

## ARTICLE IX

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

DONE in New Delhi this seventh day of December 1979, in triplicate in the English language.

For the INTERNATIONAL ATOMIC ENERGY AGENCY:

(signed) Sigvard EKLUND

For the GOVERNMENT OF INDONESIA:

(signed) Harjono NIMPUNO

For the GOVERNMENT OF THE UNITED STATES OF AMERICA:

(signed) Louis V. NOSENZO

## ANNEX

### LEVELS OF PHYSICAL PROTECTION

Pursuant to Article VII, 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<sup>e</sup>

Material	Form	Category		
		I	II	III
1. Plutonium <sup>a,f</sup>	Unirradiated <sup>b</sup>	2 kg or more	Less than 2 kg but more than 500 g	500 g or less <sup>c</sup>
2. Uranium-235 <sup>d</sup>	Unirradiated <sup>b</sup>			
	— uranium enriched to 20% <sup>235</sup> U or more	5 kg or more	Less than 5 kg but more than 1 kg	1 kg or less <sup>c</sup>
	— uranium enriched to 10% <sup>235</sup> U but less than 20%	—	10 kg or more	Less than 10 kg <sup>c</sup>
	— uranium enriched above natural, but less than 10% <sup>235</sup> U	—	—	10 kg or more
3. Uranium-233	Unirradiated <sup>b</sup>	2 kg or more	Less than 2 kg but more than 500 g	500 g or less <sup>c</sup>

<sup>a</sup> All plutonium except that with isotopic concentration exceeding 80% in plutonium-238.

<sup>b</sup> 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.

<sup>c</sup> Less than a radiologically significant quantity should be exempted.

<sup>d</sup> 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.

<sup>e</sup> 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.

<sup>f</sup> 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.



II. AMENDMENT TO THE PROJECT AGREEMENT OF 19 DECEMBER 1969  
BETWEEN THE INTERNATIONAL ATOMIC ENERGY AGENCY AND THE  
GOVERNMENT OF INDONESIA FOR ASSISTANCE BY THE AGENCY TO  
INDONESIA IN CONTINUING A RESEARCH REACTOR PROJECT

WHEREAS the International Atomic Energy Agency (hereinafter called the "Agency") and the Government of Indonesia (hereinafter called "Indonesia") on 19 December 1969 concluded an agreement (hereinafter called the "Project Agreement") for assistance by the Agency to Indonesia in continuing a training and research project for peaceful purposes relating to the TRIGA Mark II research reactor (hereinafter called the "reactor") at the Bandung Reactor Centre in Bandung, Republic of Indonesia;

WHEREAS Indonesia has requested further assistance from the Agency in obtaining from the United States of America (hereinafter called the "United States") the supply of 3647.67 grams of uranium-235 contained in 18 330 grams of uranium enriched to approximately 19.9 per cent (hereinafter called the "supplied material") for fabrication into fuel elements for the continued operation of the reactor;

WHEREAS the Board of Governors of the Agency (hereinafter called the "Board") approved the additional assistance by the Agency to Indonesia on 30 November 1979; and

WHEREAS the Agency, Indonesia and the United States are this day concluding an agreement for the transfer of the supplied material for the reactor (hereinafter called the "Third Supply Agreement") [8];

NOW THEREFORE the Agency and Indonesia agree to amend the Project Agreement as follows:

ARTICLE I

Article II, Section 2 of the Project Agreement is amended to include the supplied material transferred to Indonesia pursuant to the terms of the Third Supply Agreement which constitutes an integral part of the Project Agreement to the extent that it creates rights and obligations between the Agency and Indonesia.

ARTICLE II

Article IV of the Project Agreement is amended to read as follows, with the subsequent Sections thereof to be renumbered accordingly:

"Section 4. Indonesia undertakes that the reactor and the supplied material, and any special fissionable material produced in or by the use of either, 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 for any other military purpose.

"Section 5. It is specified that the safeguards rights and responsibilities of the Agency provided for in paragraph A of Article XII of its 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.

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[8] Part I of this document.

"Section 6. It is agreed that the Agency's safeguards rights and responsibilities referred to in Section 5 of this Agreement shall be implemented in accordance with Annex A to this Agreement until such time as these safeguards rights and responsibilities are being satisfied by the application of safeguards procedures pursuant to an agreement between Indonesia and the Agency for the application of safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons (hereinafter called the "Safeguards Agreement") [9]. In the event that the Agency's safeguards rights and responsibilities are not being implemented pursuant to the Safeguards Agreement, they shall be implemented in accordance with Annex A to this Agreement.

"Section 7. In the event the Board determines, in accordance with Article XII.C of the Statute of the Agency, that there has been any non-compliance with Section 4 or 5 of this Article, the Board shall call upon Indonesia to remedy such non-compliance forthwith, and the Board shall make such reports as it deems appropriate. In the event of failure by Indonesia to take fully corrective action within a reasonable time, the Board may take any other measures provided for in Article XII.C of the Statute of the Agency."

### ARTICLE III

Annex B to the Project Agreement with respect to the health and safety measures applying to the reactor and the supplied material is replaced by the Annex to this Amendment.

### ARTICLE IV

This Amendment shall enter into force upon signature by or for the Director General of the Agency and by the authorized representative of Indonesia.

DONE in New Delhi this seventh day of December 1979, in duplicate in the English language.

For the INTERNATIONAL ATOMIC  
ENERGY AGENCY:

(signed) Sigvard EKLUND

For the GOVERNMENT  
OF INDONESIA:

(signed) Harjono NIMPUNO

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[9] Reproduced in document INFCIRC/283.

## ANNEX

### SAFETY STANDARDS AND MEASURES

1. The safety standards and measures applicable to the project shall be those set forth in Agency document INFCIRC/18/Rev.1 (hereinafter called the "Safety Document") as specified below.

2. Indonesia shall apply the Agency's Basic Safety Standards for Radiation Protection [10] and relevant provisions of the Agency's Regulations for the Safe Transport of Radioactive Materials [11], as they are revised by the Agency from time to time, and shall as far as possible apply them also to any shipment of the supplied material outside the jurisdiction of Indonesia. Indonesia shall endeavour to ensure safety conditions as recommended in the relevant parts of the Agency's codes of practice.

3. Indonesia shall arrange for submission to the Agency, at least sixty 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, with particular reference to the following types of operations, to the extent that such information is relevant and not yet available to the Agency:

- (a) Receipt and handling of the supplied material;
- (b) Loading of the supplied material into the research reactor;
- (c) Start-up and pre-operational testing of the research reactor with the supplied material;
- (d) Experimental programme and procedures involving the research reactor;
- (e) Unloading of the supplied material from the research reactor;
- (f) Handling and storage of the supplied material after unloading.

Once the Agency has determined that the safety measures provided for are adequate, it shall give its consent for the start of the assisted operation. 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 research reactor or the supplied material with respect to which operation no such information has been submitted, it 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 referred to above.

4. 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.

5. 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 safety measures to the project, in accordance with paragraphs 5.1 and 5.3 of the Safety Document. Special safety missions may be arranged by the Agency in the circumstances specified in paragraph 5.2 of the Safety Document.

6. Changes in the safety standards and measures laid down in this Annex may be made in accordance with paragraphs 6.1 to 6.3 of the Safety Document.

[10] Safety Series No. 9, 1967 Edition (STI/PUB/147).

[11] Ibid., No. 6, IAEA Safety Standards, 1973 Revised Edition (As Amended), 1979 (STI/PUB/517).