

## Information Circular

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# Agreement between the International Atomic Energy Agency, the Government of Jamaica and the Government of the United States of America for Assistance in Securing Low Enriched Uranium for a Research Reactor

1. The text of the Agreement between the International Atomic Energy Agency, the Government of Jamaica and the Government of the United States of America for Assistance in Securing Low Enriched Uranium for a Research Reactor is reproduced in this document for the information of all Members of the Agency. The Agency's Board of Governors approved the text of the Agreement on 6 March 2013. The Agreement was signed by the authorized representatives of Jamaica on 25 November 2013, the United States on 2 May 2013 and by the Director General of the IAEA on 16 December 2013.
2. Pursuant to the Article XI of the Agreement, the Agreement entered into force on 16 December 2013, upon signature by the Director General of the IAEA and by the authorized representatives of Jamaica and the United States.

**AGREEMENT BETWEEN THE INTERNATIONAL ATOMIC ENERGY AGENCY, THE GOVERNMENT OF JAMAICA AND THE GOVERNMENT OF THE UNITED STATES OF AMERICA FOR ASSISTANCE IN SECURING LOW ENRICHED URANIUM FOR A RESEARCH REACTOR**

WHEREAS the Government of Jamaica (hereinafter called "Jamaica"), desiring to convert the core of the low power critical experiment reactor of the type known as Slowpoke II (hereinafter called the "reactor") from the use of high enriched uranium fuel to the use of low enriched uranium (hereinafter called "LEU") fuel, has requested the assistance of the International Atomic Energy Agency (hereinafter called the "IAEA") in securing the transfer of LEU fuel for the reactor;

WHEREAS under the Agreement for Cooperation between the IAEA and the United States of America, concluded on 11 May 1959, as amended (hereinafter called the "Cooperation Agreement"), the Government of the United States (hereinafter called "United States") undertook to make available to the IAEA pursuant to the Statute of the IAEA (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 IAEA, persons under the jurisdiction of the United States to make arrangements to transfer and export materials, equipment or facilities for Members of the IAEA in connection with an IAEA-assisted project;

WHEREAS Jamaica, on 6 November 1978, concluded with the IAEA an Agreement for the Application of Safeguards in Connection with the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean and the Treaty on the Non-Proliferation of Nuclear Weapons (hereinafter called the "Safeguards Agreement");

WHEREAS Jamaica and the United States reaffirm their support of the objectives of the Statute and their commitment to ensuring that the international development and use of nuclear energy for peaceful purposes are carried out under arrangements that, to the maximum extent, will prevent the proliferation of nuclear explosive devices;

NOW THEREFORE, the IAEA, Jamaica and the United States (hereinafter called "the Parties") hereby agree as follows:

## **ARTICLE I**

### **Definition of the Project**

1. The project which is the subject of this Agreement is the supply by the United States, through the IAEA, of LEU fuel to Jamaica for the operation of the reactor, which is located at the University of the West Indies at Kingston, Jamaica.
2. This Agreement shall apply, mutatis mutandis, to any additional assistance provided by the IAEA to Jamaica for the project.
3. Except as specified in this Agreement, neither the IAEA nor the United States shall assume any obligations or responsibilities insofar as the project is concerned. Jamaica shall assume full responsibility for any claims arising out of its activities in connection with the project.

## **ARTICLE II**

### **Supply of Low Enriched Uranium**

1. The IAEA, pursuant to Article IV of the Cooperation Agreement, shall request the United States to permit the transfer and export to Jamaica of approximately 9 kilograms of uranium enriched to less than 20 per cent by weight in the isotope uranium-235 (hereinafter called the "supplied material") contained in fuel elements at no cost to Jamaica or the IAEA, for use in the continued operation of the reactor.
2. The United States shall, subject to the provisions of the Cooperation Agreement, approve the transfer specified in paragraph 1 above and shall transfer title to the supplied material to the IAEA upon arrival of the material in Jamaica, and the IAEA shall thereafter immediately and automatically transfer the title to Jamaica.
3. The supplied material and any special fissionable material produced through its use, including subsequent generations of produced special fissionable material, shall be used exclusively for the reactor and shall remain at the University of the West Indies at Kingston, Jamaica, unless the United States and Jamaica otherwise agree.
4. 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 Parties. Such material shall not be further enriched unless the Parties otherwise agree.
5. The particular terms and conditions for the transfer of 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 Jamaica and the United States in implementation of this Agreement.

## **ARTICLE III**

### **Transport, Handling and Use**

1. Jamaica and the United States shall take all appropriate measures to ensure the safe transport, handling and use of the supplied material. Upon arrival in Jamaica, such measures shall be the responsibility of Jamaica.
2. Neither the United States nor the IAEA warrants the suitability or fitness of the supplied material for any particular use or application. Neither the United States nor the IAEA shall at any time bear any responsibility towards Jamaica or any person for any claim arising out of the transport, handling or use of the supplied material.

## **ARTICLE IV**

### **Safeguards**

1. Jamaica undertakes that the supplied material and any special fissionable material produced through the use of the supplied material, 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 in such a way as to further any military purpose.
2. The safeguards rights and responsibilities of the IAEA 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. Jamaica shall cooperate with the IAEA to facilitate the implementation of the safeguards required by this Agreement.
3. The IAEA safeguards referred to in paragraph 2 of this Article shall, in respect to Jamaica, for the duration of this Agreement, be implemented pursuant to the Safeguards Agreement.
4. Article XII.C of the Statute shall apply with respect to any non-compliance by Jamaica with the provisions of this Agreement.

## **ARTICLE V**

### **Safety Standards and Measures**

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

## **ARTICLE VI**

### **IAEA Inspectors**

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

## **ARTICLE VII**

### **Scientific Information**

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

## **ARTICLE VIII**

### **Languages**

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

## **ARTICLE IX**

### **Physical Protection**

1. Jamaica undertakes that adequate physical protection measures and systems shall be maintained with respect to the supplied material and any special fissionable material produced through the use of the supplied material, including subsequent generations of produced special fissionable material.
2. The measures and systems referred to in paragraph 1 above shall, as a minimum, provide the protection set forth in IAEA Nuclear Security Series No. 13, entitled "Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5)", as it may be revised from time to time, and comply with the following requirements:
  - (a) Jamaica shall have in place an established physical protection regime for the supplied material and any special fissionable material produced through the use of the supplied material, including subsequent generations of produced special fissionable material, and for any nuclear facility while using or storing such material;
  - (b) Jamaica shall protect against unauthorized removal of the supplied material and any special fissionable material produced through the use of the supplied material, including subsequent generations of produced special fissionable material, while in use and storage;
  - (c) Jamaica shall protect against sabotage the supplied material and any special fissionable material produced through the use of the supplied material, including subsequent generations of produced special fissionable material, while in use and storage, and any nuclear facility while using or storing such material; and
  - (d) Jamaica shall protect against unauthorized removal and sabotage during transport of the supplied material and any special fissionable material produced through the use of the supplied material, including subsequent generations of produced special fissionable material.

## **ARTICLE X**

### **Settlement of Disputes**

1. Any decision of the IAEA Board of Governors concerning the implementation of Article IV, V or VI of this Agreement shall, if the decision so provides, be given effect immediately by Jamaica and the IAEA pending the final settlement of any dispute.
2. Any dispute arising out of the interpretation or implementation of this Agreement shall be settled by the Parties by consultation.

## **ARTICLE XI**

### **Entry into Force and Duration**

1. This Agreement shall enter into force upon signature by the Director General of the IAEA and by the authorized representatives of Jamaica and the United States.
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 Jamaica 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 triplicate in the English language.

For the **INTERNATIONAL ATOMIC ENERGY AGENCY:**

(Signed)

Yukiya Amano, Director General  
Vienna, 16 December 2013

For the **GOVERNMENT OF JAMAICA:**

(Signed)

Wayne McCook, Ambassador  
Geneva, 25 November 2013

For the **GOVERNMENT OF THE UNITED STATES OF AMERICA:**

(Signed)

Joseph Macmanus, Ambassador  
Vienna, 2 May 2013

## ANNEX

### SAFETY STANDARDS AND MEASURES

1. The safety standards and measures applicable to the Agreement between the International Atomic Energy Agency, the Government of Jamaica and the Government of the United States of America for Assistance in Securing Low Enriched Uranium for a Research Reactor, of which this Annex is an integral part, shall be those defined in IAEA document INFCIRC/18/Rev.1 (hereinafter the "Safety Document"), or in any subsequent revision thereof, and as specified below.

2. Jamaica shall, inter alia, apply the Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards (IAEA Safety Standards Series No. GSR Part 3), and Regulations for the Safe Transport of Radioactive Material, 2012 Edition (IAEA Safety Standard Series No. SSR-6) as they may be revised from time to time, and as far as possible Jamaica shall apply them also to any shipment of the supplied material outside the jurisdiction of Jamaica. Jamaica shall, inter alia, ensure safety conditions as recommended in the Safety of Research Reactors, Safety Requirements (IAEA Safety Standards Series No. NS-R-4) and other relevant IAEA Safety Standards.

3. Jamaica shall arrange for the submission to the IAEA, at least thirty (30) days prior to the proposed transfer of any part of the supplied material to the jurisdiction of Jamaica, 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 following IAEA Safety Guides:

- (a) Safety Assessment of Research Reactors and Preparation of the Safety Analysis Report (IAEA Safety Standards Series No. SSG-20);
- (b) Safety in the Utilization and Modification of Research Reactors (IAEA Safety Standards Series No. SSG-24);
- (c) Commissioning of Research Reactors (IAEA Safety Standards Series No. NS-G-4.1);
- (d) Core Management and Fuel Handling for Research Reactors (IAEA Safety Standards Series No. NS-G-4.3); and
- (e) Operational Limits and Conditions and Operating Procedures for Research Reactors (IAEA Safety Standards Series No. NS-G-4.4),

including, in particular, reference to the following types of operations, to the extent that the relevant information is not yet available to the IAEA:

- (a) Receipt and handling of the supplied material;
- (b) Loading of the supplied material into the reactor;
- (c) Commissioning test, including start-up and pre-operational testing of the reactor with the supplied material;
- (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 IAEA has determined that the safety measures provided for the project are adequate, the IAEA shall give its consent for the start of the proposed operations. Should Jamaica 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, Jamaica shall submit to the IAEA all relevant information as specified in paragraph 4.7 of the Safety Document, on the basis of which the IAEA may require the application of additional safety measures in accordance with paragraph 4.8 of the Safety Document. Once Jamaica has undertaken to apply the additional safety measures requested by the IAEA, the IAEA shall give its consent for the aforementioned modifications or operations envisaged by Jamaica.



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

6. The IAEA may, in agreement with Jamaica, send safety missions for the purpose of providing advice and assistance to Jamaica 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 IAEA 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 IAEA and Jamaica in accordance with paragraphs 6.2 and 6.3 of the Safety Document.