AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE REPUBLIC OF KOREA AND THE GOVERNMENT OF THE UNITED STATES OF AMERICA

CONCERNING PEACEFUL USES OF NUCLEAR ENERGY

The Government of the Republic of Korea and the Government of the United States of America (hereinafter referred to as the "Parties"),

RECOGNIZING the value of the close cooperation between the Parties in the peaceful uses of nuclear energy pursuant to the Agreement for Cooperation Between the Government of the Republic of Korea and the Government of the United States of America Concerning Civil Uses of Atomic Energy, signed on November 24, 1972, as amended (hereinafter referred to as the "1972 Agreement");

CONFIRMING that the Treaty on the Non-Proliferation of Nuclear Weapons, done on July 1, 1968 (hereinafter referred to as the "NPT"), to which the Republic of Korea and the United States of America are parties, is the cornerstone of the global nuclear nonproliferation regime and reaffirming their desire to promote universal adherence to the NPT;

REAFFIRMING the Parties' support of the objectives of the International Atomic Energy Agency (hereinafter referred to as the "IAEA") and its safeguards system, including the Additional Protocol;

AFFIRMING the inalienable right of NPT parties to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I, II and III of the NPT;

DESIRING, in this regard, to expand the existing cooperation between the Parties by entering into new arrangements for peaceful uses of nuclear energy without prejudice to the sovereignty of each Party, and recognizing the need for long-term planning on a predictable and reliable basis and for an enduring strategic nuclear energy partnership, founded on the principles of equality and reciprocity, as well as emphasizing their recognition that they have both attained an advanced level in the use of nuclear energy for electricity production and in the development of their nuclear industries;

AFFIRMING in particular the shared goal of pursuing the safe, secure and

environmentally sustainable development of civil nuclear energy for peaceful purposes and in a manner that supports nuclear nonproliferation and international safeguards;

CONFIRMING their mutual interest in expediting the development of radioactive waste management technologies and the next generation nuclear energy systems, including advanced fuel cycle technologies in order to respond effectively to the issues of climate change, nonproliferation, energy security and sustainable economic development, with due consideration of the Parties' advanced level in the peaceful uses of nuclear energy;

RECOGNIZING the importance of the use and development of nuclear energy for peaceful purposes, and desiring to expand and facilitate nuclear research and development cooperation as well as industrial and commercial cooperation and nuclear trade, thus strengthening their bilateral alliance relationship;

DESIRING to enhance cooperation in ensuring safety in nuclear activities aimed at preventing nuclear accidents and providing appropriate assistance in the event of a nuclear accident or radiological emergency to mitigate its consequences;

REAFFIRMING their strong partnership on strengthening the global nonproliferation regime, including nuclear security, nuclear safeguards, combating nuclear terrorism and the proliferation of weapons of mass destruction, and close cooperation on advancing their shared objective to address the security and proliferation threat posed by North Korea's nuclear program; and

MINDFUL that peaceful nuclear activities must be undertaken with a view to protecting the international environment from radioactive, chemical and thermal contamination;

HAVE AGREED AS FOLLOWS:

ARTICLE 1 DEFINITIONS

For the purpose of this Agreement and the Agreed Minutes:

- (a) "Agreed Minutes" means the Agreed Minute and the Agreed Minute on High Level Bilateral Commission annexed to this Agreement, both of which are integral parts hereof;
- (b) "Byproduct material" means any radioactive material (except special fissionable material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special fissionable material;
- (c) "Component" means a component part of equipment, or other items so designated by agreement of the Parties;
- (d) "Conversion" means any of the normal operations in the nuclear fuel cycle, preceding fuel fabrication and excluding enrichment, by which uranium is transformed from one chemical form to another;
- (e) "Equipment" means any nuclear reactor as a complete unit, other than one designed or used primarily for the formation of plutonium or uranium 233, and any other items specified below or so designated by agreement of the Parties:
 - reactor pressure vessel: metal vessel, as a complete unit or as a major shop-fabricated part therefor, which is designed or prepared to contain the core of a reactor and is capable of withstanding the operating pressure of the primary coolant,
 - ii) "on-line" reactor fuel charging and discharging machine as a complete unit: manipulative equipment especially designed or prepared for inserting or removing fuel in a reactor capable of on-load operation,
 - iii) complete reactor control rod system: complete control rod assemblies, including the control rod drive mechanism, especially designed or prepared for the control of the reaction rate in a reactor,
 - iv) reactor primary coolant pump as a complete unit: pump, including the motor, especially designed or prepared for circulating the primary

coolant for a reactor;

- (f) "High enriched uranium" means uranium enriched to twenty percent or greater in the isotope 235;
- (g) "Information" means scientific, commercial or technical data or information in any form that is appropriately designated by agreement of the Parties or their appropriate authorities to be provided or exchanged under this Agreement;
- (h) "Low enriched uranium" means uranium enriched to less than twenty percent in the isotope 235;
- (i) "Moderator material" means heavy water or graphite of a purity suitable for use in a reactor to slow down high velocity neutrons and increase the likelihood of further fission, or any other such material so designated by agreement of the Parties;
- (j) "Nuclear material" means (1) "source material", namely, uranium containing the mixture of isotopes occurring in nature; uranium depleted in the isotope 235; thorium; any of the foregoing in the form of metal, alloy, chemical compound, or concentrate; any other substance containing one or more of the foregoing in such concentration as may be agreed to by the Parties; and such other substances as may be agreed to by the Parties; and (2) "special fissionable material", namely, plutonium, uranium 233, uranium enriched in the isotope 233 or 235; any substance containing one or more of the foregoing; and such other substances as may be agreed to by the Parties;
- (k) "Peaceful purposes" include the use of information, nuclear material, moderator material, byproduct material, equipment and components in such fields as research, power generation, medicine, agriculture and industry, but do not include use in, research on, or development of any nuclear explosive device, or any military purpose;
- (l) "Person" means any individual or any entity subject to the jurisdiction of either Party but does not include the Parties to this Agreement;
- (m) "Reactor" means any apparatus, other than a nuclear weapon or other nuclear explosive device, in which a self-sustaining fission chain reaction is maintained by utilizing uranium, plutonium or thorium or any combination thereof;

- (n) "Restricted Data" means all data concerning (1) design, manufacture or utilization of nuclear weapons, (2) the production of special fissionable material, or (3) the use of special fissionable material in the production of energy, but shall not include data of a Party that it has declassified or removed from the category of Restricted Data;
- (o) "Sensitive nuclear technology" means any information (including information incorporated in equipment or an important component thereof) that is not in the public domain and that is important to the design, construction, fabrication, operation or maintenance of any facility designed or used primarily for uranium enrichment, reprocessing of nuclear fuel, or heavy water production, or any other such information that may be designated by agreement of the Parties.

ARTICLE 2 SCOPE OF COOPERATION

- 1. The Parties shall cooperate in the peaceful uses of nuclear energy in accordance with the provisions of this Agreement and their applicable treaties, national laws, regulations and license requirements.
- 2. Transfer of information, nuclear material, moderator material, equipment and components pursuant to this Agreement may be undertaken between the Parties or through authorized persons, whether directly or through a third country. Information, nuclear material, moderator material, equipment, and components transferred from the territory of one Party to the territory of the other Party, whether directly or indirectly, shall become subject to this Agreement upon their entry into the territorial jurisdiction of the receiving Party, provided that the supplying Party has notified the receiving Party in writing of the intended transfer and the receiving Party has acknowledged in writing the receipt of such notification. The Parties shall make reasonable efforts to provide such notifications in advance of shipment, recognizing the importance of doing so. Such transfers shall also be subject to such additional terms and conditions as may be agreed to by the Parties.

- 3. Nuclear material, moderator material, byproduct material, equipment and components (collectively referred to for the purposes of this paragraph as "items") subject to this Agreement shall remain subject to the provisions of this Agreement until it has been determined in writing by the Parties or their authorities, in accordance with the procedures set out in the Administrative Arrangement established pursuant to Article 19:
 - (a) that such items have been retransferred beyond the territory, jurisdiction, or control of the receiving Party in accordance with the relevant provisions of this Agreement,
 - (b) that, in the case of nuclear material or moderator material, it is no longer usable for any nuclear activity relevant from the point of view of international safeguards or has become practically irrecoverable, or
 - (c) that, in the case of equipment, components, or byproduct material, such items are no longer usable for nuclear purposes.

ARTICLE 3

COOPERATION ON NUCLEAR RESEARCH AND DEVELOPMENT

- 1. The Parties shall undertake to facilitate the fullest possible cooperation in nuclear research, development and demonstration in the following areas, insofar as such activities are covered by the respective nuclear research and development programs of the Parties:
 - (a) Nuclear safety including regulatory and operational aspects of radiological protection;
 - (b) Next generation nuclear energy systems including advanced nuclear fuel cycle technology;
 - (c) Radioactive waste management including disposal;
 - (d) Production of radioactive isotopes and application of radiation and radioactive isotopes;
 - (e) Safeguards and physical protection;
 - (f) Controlled thermonuclear fusion including in multilateral projects;
 - (g) Design and manufacture of nuclear fuels;

- (h) Development, design, construction, operation, maintenance and use of reactors, reactor experiments, and decommissioning; and
- (i) Other areas as may be agreed upon by the Parties.
- 2. Cooperation pursuant to this Article may include, but is not limited to, training, exchange of personnel, meetings, exchanges of samples, materials and instruments for experimental purposes and a balanced participation in joint studies and projects.

ARTICLE 4 TRANSFER OF INFORMATION

- 1. Information concerning the use of nuclear energy for peaceful purposes may be transferred. Transfers of information may be accomplished through various means, including, but not limited to, reports, data banks, computer programs, conferences, visits, and assignments of staff to facilities.
- 2. This Agreement does not require the transfer of any information that the Parties are not permitted under their respective treaties, national laws and regulations to transfer.
- 3. Restricted Data shall not be transferred under this Agreement.
- 4. Sensitive nuclear technology and technology or information that is not in the public domain concerning fabrication of nuclear fuel containing plutonium may be transferred under this Agreement if provided for by an amendment to this Agreement, or may be transferred by a separate agreement between the Parties.

ARTICLE 5 INDUSTRIAL AND COMMERCIAL COOPERATION

The Parties shall undertake to facilitate the exchange of nuclear material, moderator material, equipment and components, and scientific and technological information between themselves and their authorized persons, for the peaceful uses of nuclear energy. Such exchange may take place through commercial relations between their authorized persons, including but not limited to investments, joint ventures, trade under Article 6 and licensing arrangements.

ARTICLE 6 NUCLEAR TRADE

- 1. The Parties shall facilitate trade in nuclear material, moderator material, equipment and components between themselves and their authorized persons, to serve the mutual interests of industry, utilities and consumers and, where appropriate, trade between third countries and either Party of nuclear material, moderator material, equipment and components subject to this Agreement.
- 2. Authorizations, including export and import licenses and approvals for the transfer of technical data and assistance under this Agreement as well as authorizations or consents to third parties, relating to trade, industrial operations or nuclear material movements in the territories of the Parties shall not be used to restrict trade. The Parties, through their appropriate authorities, shall promptly and without undue expense act upon applications for such authorizations necessary to facilitate trade under this Article. The Parties agree to make all reasonable efforts, consistent with their domestic laws and regulations, to issue such authorizations promptly.

ARTICLE 7

TRANSFER OF NUCLEAR MATERIAL, MODERATOR MATERIAL, EQUIPMENT AND COMPONENTS

1. Nuclear material, moderator material, equipment and components may be transferred for applications consistent with this Agreement. Any special

fissionable material transferred under this Agreement shall be low enriched uranium, except as provided in paragraphs 3 and 4 of this Article. Any facility designed or used primarily for uranium enrichment, reprocessing of nuclear fuel, heavy water production, or fabrication of nuclear fuel containing plutonium, and any part or group of parts essential to the operation of such a facility may be transferred under this Agreement if provided for by an amendment to this Agreement, or may be transferred under a separate agreement between the Parties.

- 2. Low enriched uranium may be transferred, including *inter alia* by sale or lease, for use as fuel in reactors and reactor experiments, for conversion or fabrication, for production of radioisotopes, or for such other purposes as may be agreed by the Parties.
- 3. Small quantities of special fissionable material other than low enriched uranium may be transferred for use as samples, standards, detectors, targets, tracers or for such other purposes as the Parties may agree.
- 4. Special fissionable material other than low enriched uranium and special fissionable material contemplated under paragraph 3 may be transferred for specified applications, subject to the Parties' respective applicable laws, regulations, and licensing policies, including for any of the following purposes: use in loading of fast reactors or in fast reactor experiments; the reliable, efficient and continuous operation of fast reactors; or the conduct of fast reactor experiments.

ARTICLE 8 NUCLEAR FUEL SUPPLY

The Government of the United States of America shall endeavor to take such actions as may be necessary and feasible to ensure a reliable supply of low enriched uranium to the Republic of Korea, including the prompt issuance, subject to its domestic laws, regulations and licensing policies, of licenses for the export to the Republic of Korea of low enriched uranium and authorizations for the retransfer to the Republic of Korea of low enriched uranium resulting from the processing of nuclear material exported from the United States to third countries for processing into nuclear fuel for use in the Republic of Korea.

ARTICLE 9

COOPERATION ON SPENT FUEL MANAGEMENT

The Government of the United States of America shall consider such actions as are feasible to assist the Republic of Korea in the safe and secure management, including, but not limited to, storage, transportation, and disposal, of irradiated special fissionable material produced through the use of nuclear material or equipment transferred pursuant to this Agreement.

ARTICLE 10 STORAGE AND RETRANSFERS

- 1. Plutonium and uranium 233 (except as contained in irradiated fuel elements), and high enriched uranium, transferred pursuant to this Agreement or used in or produced through the use of nuclear material or equipment so transferred, shall only be stored in a facility to which the Parties agree.
- 2. Nuclear material, moderator material, equipment and components transferred pursuant to this Agreement and any special fissionable material produced through the use of any such nuclear material, moderator material, or equipment, may only be transferred: to persons authorized by the receiving Party; and, if the Parties agree, beyond the territorial jurisdiction of the receiving Party.
- 3. Irradiated nuclear material transferred pursuant to this Agreement or produced through the use of nuclear material, moderator material, or equipment transferred pursuant to this Agreement may be transferred to a third country as agreed by the Parties, or to the other Party if the receiving Party agrees and designates a

storage or disposition option. In the event of transfer between the Parties, the Parties shall make appropriate implementing arrangements.

ARTICLE 11

ENRICHMENT, REPROCESSING, AND OTHER ALTERATION IN FORM OR CONTENT

- 1. The reprocessing or other alteration in form or content of source material or special fissionable material transferred pursuant to this Agreement or used in or produced through the use of any source material, special fissionable material, moderator material, or equipment so transferred may take place only if the Parties agree in writing, including with respect to the facilities in which such an activity may be performed.
- 2. Uranium transferred pursuant to this Agreement, and uranium used in or produced through the use of equipment transferred pursuant to this Agreement, may be enriched only if: (a) the Parties agree in writing on an arrangement to do so, following consultations undertaken bilaterally through the High Level Bilateral Commission to be established pursuant to paragraph 2 of Article 18 of this Agreement and consistent with the Parties' applicable treaties, national laws, regulations and license requirements, and (b) the enrichment is only up to less than twenty percent in the uranium isotope 235.
- 3. Alteration in form or content does not include irradiation or re-irradiation of nuclear reactor fuel, or conversion, reconversion, or fabrication involving unirradiated source material or unirradiated low enriched uranium.

ARTICLE 12

PHYSICAL PROTECTION

1. Adequate physical protection shall be maintained with respect to nuclear material and equipment transferred pursuant to this Agreement and special

fissionable material used in or produced through the use of nuclear material, moderator material or equipment so transferred.

- 2. To fulfill the requirement in paragraph 1, each Party shall apply measures in accordance with (1) levels of physical protection at least equivalent to the recommendations published in IAEA document INFCIRC/225/Rev.5 entitled "Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5)" and in any subsequent revisions of that document agreed to by the Parties, and (2) the provisions of the Convention on the Physical Protection of Nuclear Material of March 3, 1980, and any amendments to that Convention that enter into force for both Parties.
- 3. The Parties shall keep each other informed through diplomatic channels of those agencies or authorities having responsibility for ensuring that levels of physical protection for nuclear material in their territory or under their jurisdiction or control are adequately met and having responsibility for coordinating response and recovery operations in the event of unauthorized use or handling of nuclear material subject to this Article. The Parties shall also inform each other through diplomatic channels of the designated points of contact within their appropriate authorities to cooperate on matters of out-of-country transportation and other matters of mutual concern.
- 4. The provisions of this Article shall be implemented in such a manner as to avoid undue interference in the nuclear activities in the two countries and so as to be consistent with prudent management practices required for the economic and safe conduct of their nuclear programs.

ARTICLE 13 NO EXPLOSIVE OR MILITARY APPLICATION

Nuclear material, moderator material, equipment and components transferred pursuant to this Agreement and any nuclear material, moderator material, or byproduct material used in or produced through the use of any nuclear material, moderator material, equipment or components so transferred shall not be used for a nuclear weapon or any nuclear explosive device, for research on or development of any nuclear explosive device, or for any military purpose.

ARTICLE 14 SAFEGUARDS

- 1. Cooperation under this Agreement shall require the application of IAEA safeguards with respect to all nuclear activities within the territory of the Republic of Korea under its jurisdiction or carried out under its control anywhere. Implementation of a safeguards agreement pursuant to paragraph 4 of Article III of the NPT shall be considered to fulfill this requirement.
- 2. Nuclear material transferred to the Republic of Korea pursuant to this Agreement or used in or produced through the use of any nuclear material, moderator material, equipment or components so transferred shall be subject to safeguards in accordance with the Agreement between the Government of the Republic of Korea and the IAEA for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons, signed on October 31, 1975 (hereinafter referred to as the "ROK-IAEA Safeguards Agreement"), which entered into force on November 14, 1975, and the Additional Protocol thereto, which entered into force on February 19, 2004.
- 3. Nuclear material transferred to the United States of America pursuant to this Agreement or used in or produced through the use of any nuclear material, moderator material, equipment or components so transferred shall be subject to the Agreement between the United States of America and the IAEA for the Application of Safeguards in the United States of America, signed on November 18, 1977 (hereinafter referred to as the "U.S.-IAEA Safeguards Agreement"), which entered into force on December 9, 1980, and the Additional Protocol thereto, which entered into force on January 6, 2009.
- 4. In the event that the ROK-IAEA Safeguards Agreement referred to in

paragraph 2 of this Article is not being applied, the Republic of Korea shall enter into an agreement with the IAEA for the application of safeguards which provides for effectiveness and coverage equivalent to that provided by the ROK-IAEA Safeguards Agreement required by paragraph 2 of this Article or, if that is not possible, the Parties shall immediately establish safeguards arrangements for the application of safeguards which provide for effectiveness and coverage equivalent to that provided by the ROK-IAEA Safeguards Agreement required by paragraph 2 of this Article.

- 5. In the event that the U.S.-IAEA Safeguards Agreement referred to in paragraph 3 of this Article is not being applied, the United States of America shall enter into an agreement with the IAEA for the application of safeguards which provides for effectiveness and coverage equivalent to that provided by the U.S.-IAEA Safeguards Agreement required by paragraph 3 of this Article, or if that is not possible, the Parties shall immediately establish safeguards arrangements for the application of safeguards which provide for effectiveness and coverage equivalent to that provided by the U.S.-IAEA Safeguards Agreement required by paragraph 3 of this Article.
- 6. Each Party shall take such measures as necessary to maintain and facilitate the application of safeguards provided for under this Article.
- 7. Each Party shall maintain a system of accounting for and control of nuclear material transferred pursuant to this Agreement and nuclear material used in or produced through the use of any nuclear material, moderator material, equipment or components so transferred. The procedures for this system shall be comparable to those set forth in IAEA document INFCIRC/153 (Corrected), or in any revision of that document agreed to by the Parties.
- 8. The provisions of this Article shall be implemented in such a manner as to avoid hampering, delay or undue interference in the nuclear activities in the two countries and so as to be consistent with prudent management practices required for the economic and safe conduct of their nuclear programs.

ARTICLE 15 GOOD FAITH AND INTERESTS

The terms of this Agreement shall be implemented in good faith and with due regard to the legitimate commercial interests, whether international or domestic, of each Party and the long-term requirements of the nuclear energy programs in place in the Republic of Korea and the United States of America, in order to promote the peaceful uses of nuclear energy.

ARTICLE 16 MULTIPLE SUPPLIER CONTROLS

If any agreement between either Party and another country or group of countries provides to such other country or group of countries rights equivalent to any or all of those set forth under Articles 10 and 11 with respect to nuclear material, moderator material, equipment or components subject to this Agreement, the Parties may, upon request of either Party, agree that the implementation of any such rights will be accomplished by such other country or group of countries.

ARTICLE 17 CESSATION OF COOPERATION AND RIGHT OF RETURN

- 1. If either Party at any time following the entry into force of this Agreement:
 - (a) does not comply with the provisions of Articles 10, 11, 12, 13 or 14 of this Agreement; or
 - (b) terminates, abrogates or materially violates a safeguards agreement with the IAEA;

the other Party shall have the rights to cease further cooperation under this Agreement or terminate this Agreement and in either case to require the return of any nuclear material, moderator material, equipment or component (collectively

referred to for the purposes of this Article as "items") transferred pursuant to this Agreement and any special fissionable material produced through the use of such items.

- 2. If the United States of America at any time following the entry into force of this Agreement detonates a nuclear explosive device using nuclear material, moderator material, equipment or components transferred pursuant to this Agreement or any nuclear material used in or produced through the use of such items, the Government of the Republic of Korea shall have the same rights as specified in paragraph 1 of this Article.
- 3. If the Republic of Korea at any time following the entry into force of this Agreement detonates a nuclear explosive device, the Government of the United States of America shall have the same rights as specified in paragraph 1 of this Article.
- 4. If either Party exercises its rights under this Article to require the return of any nuclear material, moderator material, equipment or component, it shall reimburse the other Party for the fair market value of such items.
- 5. Before either Party takes steps to cease cooperation under this Agreement, to terminate this Agreement or to require such return, the Parties shall consult for the purpose of taking corrective steps and shall carefully consider the economic effects of such actions, taking into account the need to make such other appropriate arrangements as may be required.

ARTICLE 18 CONSULTATIONS AND ENVIRONMENTAL PROTECTION

1. The Parties undertake to consult at the request of either Party regarding the implementation of this Agreement and the development of further cooperation in the field of the peaceful uses of nuclear energy, including nuclear safety. Such

consultations may include, but are not limited to, the following matters:

- (a) the adequacy of physical protection of nuclear material subject to this Agreement and on facilities where such material is or will be located;
- (b) implementation of administrative procedures to ensure timely processing of applications for (i) export and import licenses, (ii) approvals for the transfer of technical data and assistance under this Agreement and (iii) authorizations or consents to third parties, relating to trade, industrial operations or nuclear material movements in the territories of the Parties;
- (c) addition of a third country or destination in the advance consent lists to be exchanged between the Parties for retransfers of unirradiated low enriched uranium, unirradiated source material, equipment and components;
- (d) addition of a third country or destination to which irradiated nuclear material may be transferred;
- (e) implication of changes in domestic laws, regulations, policies and licensing requirements on the implementation of this Agreement; and
- (f) issues of multilateral cooperation relating to the implementation of this Agreement.
- 2. The Parties shall form a High Level Bilateral Commission to be led by the Deputy Secretary of Energy for the Government of the United States of America and by the Vice Minister of Foreign Affairs for the Government of the Republic of Korea (collectively, the "Commission Chairs") to facilitate the Parties' strategic cooperation and dialogue regarding areas of mutual interest in civil nuclear energy, including the civil nuclear fuel cycle. At the direction of the Commission Chairs of the High Level Bilateral Commission, working groups shall be formed to consult with each other on assured fuel supply, spent fuel management, export cooperation, nuclear security, and any other topics related to peaceful nuclear cooperation mutually agreed to in writing by the Parties.
- 3. The Parties shall consult with regard to activities under this Agreement to identify the international environmental implications arising from such activities and shall cooperate in protecting the international environment from radioactive, chemical or thermal contamination arising from peaceful nuclear activities under

this Agreement and in related matters of health and safety.

ARTICLE 19 ADMINISTRATIVE ARRANGEMENT

- 1. The appropriate authorities of the Parties shall establish an Administrative Arrangement in order to provide for the effective implementation of the provisions of this Agreement. The Arrangement established pursuant to this paragraph may be modified in writing by the appropriate authorities of the Parties.
- 2. The principles of fungibility, proportionality and equivalence shall apply to nuclear material subject to this Agreement. Detailed provisions for applying these principles shall be set forth in the Administrative Arrangement.
- 3. The Parties intend to continue their present practice of coordinating and facilitating government-to-government activities through a Joint Standing Committee, which is currently composed of representatives designated by each Party. The Joint Standing Committee shall report to the High Level Bilateral Commission to be established pursuant to paragraph 2 of Article 18. The Joint Standing Committee reviews should take place alternately in the Republic of Korea and in the United States of America.

ARTICLE 20 SETTLEMENT OF DISPUTES

If any question arises concerning the interpretation, implementation, or application of this Agreement, the Parties shall, at the request of either of them, consult with each other. Any dispute between the Parties regarding interpretation, implementation, or application of this Agreement shall be promptly negotiated by the Parties with a view to resolving that dispute, and may be addressed through diplomatic channels or any other peaceful means of settlement of disputes agreed

ARTICLE 21

ENTRY INTO FORCE, DURATION AND AMENDMENT

- 1. This Agreement shall enter into force on the date of the last note in an exchange of diplomatic notes in which the Parties inform each other that they have completed all applicable internal requirements necessary for its entry into force
- 2. This Agreement shall remain in force for a period of twenty (20) years and shall thereafter renew for an additional period of five (5) years unless either Party gives written notice to the other Party at least two years prior to the twentieth anniversary of entry into force of this Agreement that it does not want to renew this Agreement, in which case this Agreement shall terminate twenty (20) years after entry into force. Either Party may terminate this Agreement at any time by giving one year's advance written notice to the other Party. As soon as possible after the seventeenth (17th) anniversary of the entry into force of this Agreement, the Parties shall consult regarding the effectiveness of this Agreement in achieving their respective objectives and decide whether to pursue an extension of the term of this Agreement.
- 3. This Agreement may be amended at any time by written agreement of the Parties. At the request of either Party, the Parties shall consult with each other regarding whether to amend this Agreement or replace it with a new Agreement. Any such amendment shall enter into force in accordance with the procedures stipulated in paragraph 1 of this Article.
- 4. The 1972 Agreement shall terminate on the date this Agreement enters into force.
- 5. Nuclear material, moderator material, equipment and components subject to the 1972 Agreement shall become subject to this Agreement upon its entry into

force and shall be considered to have been transferred pursuant to this Agreement. Notwithstanding the foregoing, special fissionable material that was produced prior to the entry into force of this Agreement through the use of equipment or devices (as the term "equipment or devices" is defined in the 1972 Agreement) that were transferred to the Government of the ROK or authorized persons under its jurisdiction pursuant to the 1972 Agreement or the Superseded Agreement (as the term "Superseded Agreement" is defined in the 1972 Agreement), but not through the use of nuclear material that was transferred to the Government of the ROK or authorized persons under its jurisdiction pursuant to the 1972 Agreement or the Superseded Agreement, shall be subject only to Articles 12, 13, and 14 of this Agreement.

6. Notwithstanding the termination or expiration of this Agreement or any cessation of cooperation hereunder for any reason, Articles 10, 11, 12, 13, 14, and 17 and the Agreed Minute annexed to this Agreement shall continue in effect so long as any nuclear material, moderator material, byproduct material, equipment or component (collectively referred to for the purposes of this paragraph as "items") subject to these Articles remains in the territory of the Party concerned or under its jurisdiction or control anywhere, or until such time as the Parties agree that, in the case of nuclear material or moderator material, such items are no longer usable for any nuclear activity relevant from the point of view of international safeguards or has become practicably irrecoverable, or, in the case of equipment, components, or byproduct material, such items are no longer usable for nuclear purposes.

IN WITNESS WHEREOF, the undersigned, being duly authorized thereto by their respective Governments, have signed this Agreement.

Done at Washington, this day of June, 2015, in duplicate, in the Korean and English languages, both texts being equally authentic.

FOR THE GOVERNMENT OF

FOR THE GOVERNMENT OF THE REPUBLIC OF KOREA THE UNITED STATES OF AMERICA

AGREED MINUTE

During the negotiation of the Agreement for Cooperation between the Government of the Republic of Korea and the Government of the United States of America Concerning Peaceful Uses of Nuclear Energy("the Agreement") signed today, the following understandings, which shall be an integral part of the Agreement, were reached.

1. Coverage of Agreement

With respect to the definition of "Restricted Data" in paragraph (n) of Article 1 of the Agreement, it is the understanding of the Parties that all information on the use of special fissionable material in the production of energy from standard civilian reactors has been declassified or removed from the category of "Restricted Data."

For the purposes of implementing the rights specified in Article 10 and Article 11 of the Agreement with respect to special fissionable material produced through the use of nuclear material transferred pursuant to the Agreement and not used in or produced through the use of equipment transferred pursuant to the Agreement, such rights shall in practice be applied to that proportion of special fissionable material produced that represents the ratio of transferred material used in the production of the special fissionable material to the total amount of material so used, and similarly for subsequent generations.

For the purposes of paragraph 5 of Article 21 of the Agreement, the Parties shall establish by mutual agreement an initial inventory, which shall include all nuclear material, moderator material, equipment, and components subject to the 1972 Agreement. The Parties shall update and exchange the inventories annually.

With reference to the provisions of Article 10 and Article 11 of the Agreement, it is confirmed that the said provisions of the Agreement shall be implemented in such a manner as to avoid hampering, delay or undue

interference in the nuclear activities in the two countries and so as to be consistent with prudent management practices required for the economic and safe conduct of their nuclear programs. It is further confirmed that the provisions of the Agreement shall not be utilized for

the purpose of seeking commercial or industrial advantages, or hampering the commercial or industrial interest of either Party or its authorized persons, or for the purpose of hindering the promotion of the peaceful uses of nuclear energy.

2. Safeguards

In the event that the ROK-IAEA Safeguards Agreement or the U.S.-IAEA Safeguards Agreement referred to in paragraph 2 or paragraph 3 of Article 14 of the Agreement is not being applied, either Party shall have the rights listed below, which rights shall be suspended if both Parties agree that the need to exercise such rights is being satisfied by the application of IAEA safeguards under arrangements pursuant to paragraph 4 or paragraph 5 of Article 14 of the Agreement:

- To review in a timely fashion the design of any equipment transferred pursuant to the Agreement, or of any facility that is to use, fabricate, process or store any nuclear material so transferred or any special fissionable material used in or produced through the use of such nuclear material or equipment;
- To require the maintenance and production of records and of relevant reports
 for the purpose of assisting in ensuring accountability for nuclear material
 transferred pursuant to the Agreement and any nuclear material used in or
 produced through the use of any nuclear material, moderator material,
 equipment or components so transferred; and
- 3. To designate personnel acceptable to the other Party, who shall have access to all places and data necessary to account for the nuclear material referred

to in paragraph 2 of this Section, to inspect any equipment or facility referred to in paragraph 1 of this Section, and to install any devices and make such independent measurements as may be deemed necessary to account for such nuclear material. The safeguarded Party shall not unreasonably withhold its acceptance of personnel designated by the safeguarding Party under this paragraph. Such personnel shall, if either Party so requests, be accompanied by personnel designated by the other Party. The designated personnel shall carry out their activities in a manner in conformity with paragraph 8 of Article 14 of the Agreement.

3. Retransfers

- 1. (a) The Parties agree to the retransfer, subject to paragraph 3 of this Section, of unirradiated low enriched uranium, unirradiated source material, equipment and components subject to paragraph 2 of Article 10 of the Agreement to third countries or destinations identified as provided for in this Section. Upon the entry into force of the Agreement, the Parties shall exchange lists of third countries or destinations to which retransfers of unirradiated low enriched uranium, unirradiated source material, equipment and components subject to paragraph 2 of Article 10 of the Agreement may be made by the other Party.
 - Either Party may further add other third countries or destinations to, or upon written notice to the other Party, delete third countries or destinations temporarily or permanently from, the list it has provided after consultations with the other Party regarding proposed deletions. Neither Party shall delete third countries or destinations from its lists for the purpose of obtaining commercial advantage. Retransfers to third countries or destinations not included on the lists may be considered on a case by case basis.
 - (b) If a Party advises the other Party of circumstances that require it to seek the other Party's consent to retransfers to a third country or destination that does not have a civilian nuclear cooperation agreement with the non-transferring Party, the non-transferring Party shall make reasonable

efforts to obtain necessary assurances through an exchange of diplomatic notes or other appropriate diplomatic arrangements, to facilitate the retransfer by the transferring Party or its authorized persons to such third country or destination, to the extent feasible under the policies, laws and regulations of the non-transferring Party. This provision does not apply to Member States of the European Atomic Energy Community (EURATOM).

- 2. The Parties agree that irradiated nuclear material subject to Article 10 and Article 11 of the Agreement may be transferred (such transfers being hereinafter referred to as "retransfers") by either Party for storage and reprocessing to France, the United Kingdom, and also to any other country or destination as may be agreed upon in writing by the Parties. All such retransfers described in this paragraph shall be made in compliance with the policies, laws, and regulations of the recipient country, group of countries where applicable, or destination.
- 3. The consents provided in paragraphs 1 and 2 of this Section are subject to the following conditions:
 - (a) A Party shall not proceed with a proposed retransfer to a third country or destination under this Section until the non-transferring Party has received confirmation from the receiving country or destination or, in the case of a proposed retransfer to a country that is a member of EURATOM or another group of countries, from EURATOM or the other group of countries, as applicable, that the source material, special fissionable material, or equipment to be retransferred shall be held within EURATOM or other group of countries (if the retransfer is to a EURATOM member country or a country that is a member of another group of countries), or the receiving country or destination, subject to the terms and conditions of an agreement for peaceful nuclear cooperation to which the non-transferring Party (or a representative organization thereof) is a party and which authorizes nuclear exports from the non-transferring Party to that country or destination, or to EURATOM or other group of countries, as appropriate. If the receiving country or destination, or

EURATOM or other group of countries in the case of proposed retransfer to a country that is a member of EURATOM or such other group of countries, does not have an agreement for peaceful nuclear cooperation in force with the non-transferring Party under which components may be transferred subject to that Agreement, then the transferring Party shall not proceed with a transfer of components until the non-transferring Party has received assurances from the receiving country, destination, or EURATOM or such other group of countries that: IAEA safeguards as required by paragraph 2 of Article III of the NPT shall be applied with respect to such component (for non-nuclear weapons states within the meaning of the NPT); the component shall not be used for any nuclear explosive device or for research on or development of any nuclear explosive device; and no retransfer of the components shall occur without the prior consent of the non-transferring Party. The notification provisions applicable to retransfers under this Section shall be set forth in the Administrative Arrangement described in Article 19 of the Agreement.

- (b) The transferring Party shall keep records of any such transfers to third destinations countries or and shall upon shipment notify non-transferring Party of each such transfer. The Parties shall cooperate in efforts to obtain as soon as possible, on a generic basis, a confirmation from the third countries, or destinations on the lists, or in the case of a country on the list that is a member of EURATOM or another group of countries, from EURATOM or such other group of countries, that any retransferred items shall be subject to any agreement for cooperation in force between the receiving country, EURATOM or other group of countries, or destination and the non-transferring Party.
- 4. In the case of irradiated nuclear material subject to the Agreement transferred by either Party pursuant to paragraph 2 of this Section, the non-transferring Party agrees to provide its consent, under the applicable agreement for cooperation, to the return to the territorial jurisdiction of the transferring Party of nuclear material recovered from irradiated nuclear material so transferred subject to the conditions that:

- (a) Any such nuclear material returned to the territorial jurisdiction of the transferring Party shall be subject to the Agreement;
- (b) Any such nuclear material recovered from any reprocessing in the third country or destination shall be transferred in the form and subject to physical protection arrangements as agreed in writing by the Parties.
- 5. The consents to retransfer provided in paragraphs 1, 2, and 4 of this Section may be suspended or withdrawn in whole or in part by either Party if that Party determines that one or more of the conditions in paragraphs 3 and 4 of this Section is not satisfied, or if it determines that exceptional circumstances of concern from a nonproliferation or security standpoint so require. To the extent that time and circumstances permit, the Parties shall consult prior to such suspension or withdrawal. Such exceptional circumstances include, but are not limited to, a determination by either Party that the consent cannot be continued without a significant increase of the risk of proliferation or without jeopardizing its national security.
- 6. The Party considering that objective evidence of exceptional circumstances may exist shall consult with the other Party before reaching any decision. Any decision that such objective evidence does exist, and that activities referred to in paragraphs 1, 2 and 4 of this Section should therefore be suspended, shall be taken only at the highest levels of government after the other Party is notified in writing. Any suspension shall only be applied for the minimum period of time necessary to deal with the exceptional circumstances in a manner acceptable to the Parties. The Party invoking the right to suspend the consents granted by paragraphs 1, 2 and 4 of this Section shall keep under constant review the development of the situation which prompted the decision and shall withdraw such suspension as soon as warranted.

4. Additional Exchanges of Information

1. With regard to tritium produced after the entry into force of the Agreement

through the use of moderator material transferred pursuant to the Agreement, the Parties shall exchange annually information pertaining to its disposition for peaceful purposes consistent with Article 13 of the Agreement, including transfers to other countries or destinations. The information exchanged shall be consistent with relevant provisions of the Administrative Arrangement.

- 2. The Parties each have the responsibility pursuant to paragraph 7 of Article 14 of the Agreement to maintain a system of accounting for and control of nuclear material subject to the Agreement. In this respect, given the importance of accurate inventory information for such systems, upon the request of either Party, the other Party shall report information to the requesting Party on the status of all transactions involving nuclear material that either Party has identified as being subject to the Agreement.
- 3. Given the importance under the Agreement for each Party's nuclear trading relationships with third countries of whether the other Party has nuclear cooperation agreements with those third countries, each Party shall endeavor to keep the other Party informed on a timely basis of new agreements for nuclear cooperation which it has concluded with other governments.

5. Alteration in Form or Content

- 1. Pursuant to paragraph 1 of Article 11 of the Agreement, the Parties hereby agree that post-irradiation examination of irradiated nuclear material subject to the Agreement and the separation of radioisotopes from irradiated low enriched uranium subject to the Agreement may be conducted at the facilities in the United States of America and the Republic of Korea listed in Section 1 of Annex I to this Agreed Minute.
- 2. Pursuant to paragraph 1 of Article 11 of the Agreement, the Parties hereby agree that material consolidation and treatment involving alteration in form or content of irradiated nuclear material subject to the Agreement in which transuranics or other special fissionable material are not capable of being

separated may be conducted at the facilities in the United States of America and the Republic of Korea listed in Section 2 of Annex I to this Agreed Minute.

- 3. Facilities for the activities referred to in paragraph 1 of this Section may be added in accordance with the laws and regulations of the Parties to the list in Section 1 of Annex I to this Agreed Minute if one Party notifies the other Party in writing of the facilities to be added and the other Party provides written acknowledgement of such notification.
 - (a) Prior to any proposal to add a facility to Section 1 of Annex I to this Agreed Minute with respect to which the applicable safeguards agreement referenced in Article 14 of the Agreement would require safeguards, the Parties shall consult in order to ensure that an appropriate IAEA safeguards arrangement, as applicable, containing key elements as agreed upon with the IAEA, has been brought into force with respect to that facility.
 - (b) For each facility proposed to be added to Section 1 of Annex I to this Agreed Minute, upon conclusion of the consultations referred to in subparagraph a of this paragraph, the proposing Party shall provide the other Party with a written notification containing the following:
 - (i) The name of the owner or operator of the facility, the facility name and the existing or planned capacity;
 - (ii) The facility location, the type of nuclear material involved, the approximate date of introduction of such nuclear material into the facility and the type of activity to be conducted there; and
 - (iii) A statement that physical protection measures as required by Article 12 of the Agreement will be maintained.

The receiving Party's acknowledgement of such notification shall be limited to a statement that such notification has been received. Such acknowledgment shall be given no later than thirty days after the receipt of the notification.

4. The Parties shall provide annual reports to one another regarding all post-irradiation examination and radioisotope separation activities referred to

in paragraph 1 of this Section conducted at the facilities listed in Section 1 of Annex I to this Agreed Minute.

- 5. Facilities for the activities referred to in paragraph 2 of this Section may be added to those listed in Section 2 of Annex I to this Agreed Minute upon written agreement of the Parties, in accordance with the laws and regulations of the Parties and the following:
 - (a) Prior to any proposal to add to Section 2 of Annex I to this Agreed Minute a facility with respect to which the applicable safeguards agreement referenced in Article 14 of the Agreement would require safeguards, the Parties shall consult together with the IAEA to develop a safeguards approach and the incorporated key elements of a safeguards arrangement mutually acceptable to the Parties and to the IAEA to be brought into force with respect to that facility. The Parties shall begin consultations with each other and the IAEA within six months of the request of the Party seeking such addition, and with a view to concluding the written agreement referred to in this paragraph 5 providing for the addition of such facility to Section 2 of Annex I to this Agreed Minute within twelve months from the beginning of the consultations.
 - (b) The written agreement referred to in this paragraph shall include, as a condition for the addition of the proposed facility to Section 2 of Annex I to this Agreed Minute, entry into force of a safeguards arrangement with respect to the proposed facility with the IAEA containing the safeguards approach and key elements resulting from the consultations referred to in subparagraph a of this paragraph, and shall provide for modifications of the key elements by written agreement of the Parties.
 - (c) In the case of a proposed facility with respect to which safeguards are not required by the applicable safeguards agreement referred to in Article 14 of the Agreement, the Parties shall commence consultations on the written agreement referred to in this paragraph providing for the addition of such facility to Section 2 of Annex I to this Agreed Minute within six months of the request of a Party to add such facility and shall strive to conclude such agreement within twelve months after commencement of

consultations.

- (d) After conclusion of the written agreement referred to in this paragraph with respect to a facility proposed to be added to Section 2 of Annex I to this Agreed Minute, and following entry into force of the applicable safeguards arrangements with respect to the proposed facility (namely a facility attachment) with the IAEA, the proposing Party shall provide the other Party with a written notification containing the following:
 - (i) The name of the owner or operator of the facility, the facility name and the existing or planned capacity;
 - (ii) The facility location, the type of nuclear material involved, the approximate date of introduction of such nuclear material into the facility and the type of activity to be conducted there;
 - (iii) Where safeguards are required as provided above, a statement that a safeguards arrangement with respect to the proposed facility with the IAEA, containing the safeguards approach and the key elements referred to in subparagraph a of this paragraph, and including any modifications to the key elements as may be agreed to in writing by the Parties prior to the notification, has entered into force, and a description of the key elements contained in that safeguards arrangement; and
 - (iv) A statement that physical protection measures as required by Article 12 of the Agreement will be maintained.
- (e) The receiving Party shall provide the proposing Party with written acknowledgement of the notification of the proposing Party, which shall be limited to a statement that such notification has been received. Such acknowledgment shall be given no later than thirty days after the receipt of the notification.
- 6. The Parties shall provide annual reports to one another regarding all material consolidation and treatment activities involving alteration in form or content of irradiated nuclear material subject to the Agreement conducted at the facilities listed in Section 2 of Annex I to this Agreed Minute.

6. Arrangements for Spent Fuel Management and Disposition

- 1. The Parties have initiated a joint study to review the technical, economic and nonproliferation (including safeguards) aspects of spent fuel management and disposition technologies (the Joint Fuel Cycle Study). Following the completion of the Joint Fuel Cycle Study, or at such other time as the Parties may agree, the Parties shall consult with a view to identifying appropriate options for the management and disposition of spent fuel subject to the Agreement and for further development or demonstration of relevant technologies. The Parties shall conduct all consultations referred to in this Section as promptly as possible so that nuclear energy programs of either Party would not be unduly hampered due to the delay of the consultations.
- 2. These consultations shall be conducted under the auspices of the High Level Bilateral Commission to be established pursuant to Article 18 of the Agreement, and shall take into account all relevant considerations, including the specific characteristics of the technologies involved in such options ("Technologies"), in particular those considerations needed to ensure that the deployment of such Technologies will not result in a significant increase of the risk of proliferation. These considerations include:
 - (a) the technical feasibility of the Technologies evaluated in the Joint Fuel Cycle Study;
 - (b) the economic viability of the Technologies evaluated in the Joint Fuel Cycle Study; and
 - (c) the nonproliferation acceptability of the Technologies evaluated in the Joint Fuel Cycle Study, such as:
 - (i) the ability to effectively apply safeguards to the Technologies evaluated in the Joint Fuel Cycle Study;
 - (ii) the ability to ensure timely detection and early warning of diversion of nuclear material recovered through the facilities incorporating the Technologies; and
 - (iii) the ability of the Technologies evaluated in the Joint Fuel Cycle Study to deter or impede nuclear proliferation.

- 3. If these consultations identify an option for the management and disposition of spent fuel that involves reprocessing or other alteration in form or content of nuclear material subject to the Agreement and that the Parties agree in writing:
 - (a) is technically feasible, which may be demonstrated by a very high level of recovery of group actinides from irradiated nuclear material -- targeting a level to result in product and waste streams that can be licensed by the Parties' respective regulatory authorities -- through engineering-scale demonstrations, and the verification of performance and integrity of group actinide fuels through irradiation tests in the Joint Fuel Cycle Study;
 - (b) is economically viable, including consideration of the expected total lifecycle cost of the option, as evaluated in the Joint Fuel Cycle Study, taking into account the social and environmental costs and benefits of the option in the context of the relevant Party's laws, regulations and policies:
 - (c) is effectively safeguardable, which may be demonstrated by the availability of mutually agreed safeguards approaches for facilities, to the extent safeguards are required by the applicable safeguards agreement referenced in Article 14 of the Agreement, developed jointly through bilateral collaboration between the Parties, or trilateral collaboration (among the Parties and the IAEA), in the Joint Fuel Cycle Study or elsewhere as appropriate;
 - (d) does not significantly increase the risk of proliferation and ensures timely detection and early warning of diversion, based on, *inter alia*, (1) features that deter or impede nuclear proliferation from the perspectives of both design and operation of facilities, and (2) the availability of mutually acceptable safeguards and other measures for timely detection and early warning (such as extended containment and surveillance measures and process monitoring based on sharing of information on the operation of facilities) developed jointly through bilateral or trilateral collaboration in the Joint Fuel Cycle Study; and
 - (e) avoids the buildup of stocks of group actinides in excess of an amount

that is reasonably needed, based on a plan to utilize for transmutation the group actinides recovered from spent fuel subject to the Agreement, in particular as fuel in fast reactors;

then the Parties shall seek, in accordance with their respective national laws and regulations, to establish written arrangements for the implementation of the provisions of paragraph 1 of Article 11 of the Agreement with respect to the identified option on a long-term, predictable and reliable basis in a manner that will further facilitate peaceful uses of nuclear energy in their respective countries ("Arrangements"). The Arrangements shall include an initial list of facilities at which reprocessing or other alteration in form or content of irradiated nuclear material subject to the Agreement may be conducted during the period the Agreement is in force, and those facilities shall be added to Section 1 (for research and development facilities) or Section 2 (for demonstration or production facilities) of Annex II to this Agreed Minute, in accordance with the applicable procedures in paragraph 4 of this Section. Additional facilities may be added at a later date to the Arrangements and to Section 1 of Annex II to this Agreed Minute, or to Section 2 of Annex II to this Agreed Minute, as appropriate, in accordance with the procedures of paragraph 4 of this Section. The Parties shall proceed with a view to completing establishment of the Arrangements in accordance with this provision within twelve months from the end of the consultations referred to in paragraph 1 of this Section.

- 4. Facilities at which alteration in form or content of irradiated nuclear material subject to the Agreement may be conducted during the period the Agreement is in force may be included in the Arrangements initially, or added to the Arrangements subsequent to their establishment, and added to Section 1 or Section 2, as appropriate, of Annex II to this Agreed Minute upon written agreement of the Parties, in accordance with the laws and regulations of the Parties and the following:
 - (a) Prior to any proposal to include or add a facility with respect to which the applicable safeguards agreement referenced in Article 14 of the Agreement would require safeguards to the Arrangements and Section 1 or Section 2 of Annex II to this Agreed Minute, the Parties shall consult

together with the IAEA in order to confirm which of the safeguards approaches identified pursuant to subparagraph c of paragraph 3 of this Section would be applied in the proposed facility and to develop the key elements of a safeguards arrangement mutually acceptable to the Parties and to the IAEA for the implementation of that safeguards approach to be brought into force with respect to that facility. The Parties shall begin consultations with each other and the IAEA within six months of the request of the Party seeking such inclusion or addition, and with a view to concluding the written agreement referred to in this paragraph providing for the inclusion of such facility in or addition of such facility to the Arrangements and addition to Section 1 or Section 2 of Annex II to this Agreed Minute within twelve months from the beginning of the consultations.

- (b) The written agreement referred to in this paragraph shall include, where applicable, as a condition for the addition of the proposed facility to the Arrangements and either Section 1 or Section 2 of Annex II to this Agreed Minute, entry into force of a safeguards arrangement with respect to the proposed facility with the IAEA containing the safeguards approach and the key elements resulting from the consultations referred to in subparagraph a of this paragraph, and shall provide for modification of the key elements by written agreement of the Parties.
- (c) In the case of a proposed facility with respect to which safeguards are not required by the applicable safeguards agreement referred to in Article 14 of the Agreement, the Parties shall commence consultations on the written agreement referred to in this paragraph of this Section providing for the inclusion of such facility in or addition of such facility to the Arrangements and addition to Section 1 or Section 2 of Annex II to this Agreed Minute within six months of the request of a Party to include or add such facility and shall strive to conclude such agreement within twelve months after commencement of consultations.
- (d) After conclusion of the written agreement referred to in this paragraph with respect to a facility proposed to be added to the Arrangements and Section 1 or Section 2 of Annex II to this Agreed Minute, and following entry into force of the applicable safeguards arrangements with

respect to the proposed facility (namely a facility attachment) with the IAEA, the proposing Party shall provide the other Party with a written notification containing the following:

- (i) The name of the owner or operator of the facility, the facility name and the existing or planned capacity;
- (ii) The facility location, the type of nuclear material involved, the approximate date of introduction of such nuclear material into the facility and the type of activity to be conducted there;
- (iii) Where safeguards are required as provided above, a statement that a safeguards arrangement with respect to the proposed facility with the IAEA, containing the safeguards approach and the key elements referred to in subparagraph a of this paragraph, and including any modifications to the key elements as may be agreed to in writing by the Parties prior to the notification, has entered into force, and a description of the key elements contained in that safeguards arrangement; and
- (iv) A statement that physical protection measures as required by Article 12 of the Agreement will be maintained.
- (e) The receiving Party shall provide the proposing Party with written acknowledgement of the notification of the proposing Party, which shall be limited to a statement that such notification has been received. Such acknowledgment shall be given no later than thirty days after the receipt of the notification.
- 5. The Parties shall provide annual reports to one another, in the context of the implementation of the Administrative Arrangement established pursuant to the requirements of paragraph 1 of Article 19 of the Agreement, regarding all research and development activities conducted at facilities listed in Section 1 of Annex II to this Agreed Minute and all demonstration or production activities conducted at facilities listed in Section 2 of Annex II to this Agreed Minute.
- 6. Either Party may suspend any agreement it has given pursuant to paragraph 1 of Article 11 of the Agreement with respect to facilities listed in Section

1 or Section 2 of Annex II to this Agreed Minute, and the Arrangements established under this Section, in whole or in part, to prevent a significant increase in the risk of nuclear proliferation or in the threat to its national security caused by exceptional cases, including as a result of actions identified in Article 17 of the Agreement. The Parties shall consult prior to such suspension at the Cabinet level for the United States of America and at the Ministerial level for the Republic of Korea. Any decision for such suspension shall be taken only at the highest levels of government of the Party making such decision, and shall be notified in writing to the other Party. Any suspension shall only be applied for the minimum period of time necessary to deal with the exceptional case. The suspending Party shall keep under constant review the development of the situation which prompted the decision and shall withdraw such suspension as soon as warranted. In the event of any such suspension, any advance consents provided pursuant to Article 11 of the Agreement with respect to facilities identified in those Arrangements or in Annex II to this Agreed Minute shall be similarly suspended.

7. Enrichment

- 1. The Parties may consult in the High Level Bilateral Commission with a view to identifying appropriate options for enrichment of uranium subject to the Agreement.
- 2. These consultations shall take into account any relevant considerations raised by either Party, in particular the technical feasibility, economic viability, effective safeguardability, and adequate physical protection of the options identified and whether or not the deployment of any equipment, components, or technology necessary to carry out such options will result in a significant increase of the risk of proliferation.
- 3. If the Parties, having taken the considerations described in paragraph 2 of this Section into account, jointly identify a mutually acceptable option for

enrichment of uranium, the Parties may establish written arrangements applicable to that option, taking into account the Nuclear Suppliers Group Guidelines.

- 4. If any arrangements are agreed upon in writing pursuant to paragraph 2 of Article 11, the Parties may enrich any uranium transferred pursuant to the Agreement up to less than twenty percent in the uranium isotope 235, subject to paragraph 5 of this Section.
- 5. Upon the written agreement of the Parties on any arrangements underpinning the enrichment of uranium as identified in paragraph 4 of this Section, the activities referred to in paragraph 4 of this Section may only be conducted at facilities added to Annex III to this Agreed Minute upon written agreement of the Parties, in accordance with the laws and regulations of the Parties and the following:
 - (a) Prior to any proposal to add to Annex III to this Agreed Minute a facility with respect to which the applicable safeguards agreement referenced in Article 14 of the Agreement would require safeguards, the Parties shall consult together with the IAEA in order to develop a safeguards approach and the incorporated key elements of a safeguards arrangement mutually acceptable to the Parties and to the IAEA, to be brought into force with respect to that facility. The Parties shall begin consultations with each other and the IAEA within six months of the request of the Party seeking such addition, and with a view to concluding the written agreement referred to in this paragraph providing for the addition of such facility to Annex III to this Agreed Minute within twelve months from the beginning of the consultations.
 - (b) The written agreement referred to in this paragraph shall include, where applicable, as a condition for the addition of the proposed facility to Annex III to this Agreed Minute, entry into force of a safeguards arrangement containing the safeguards approach and the key elements resulting from the consultations referred to in subparagraph a of this paragraph, and shall provide for modification of the key elements by written agreement of the Parties.

- (c) In the case of a proposed facility with respect to which safeguards are not required by the applicable safeguards agreement referred to in Article 14 of the Agreement, the Parties shall commence consultations on the written agreement referred to in this paragraph providing for the addition of such facility to Annex III of this Agreed Minute within six months of the request of a Party to add such facility and shall strive to conclude such agreement within twelve months after commencement of consultations.
- (d) After conclusion of the written agreement referred to in this paragraph with respect to a facility proposed to be added to Annex III to this Agreed Minute, and following entry into force of the applicable safeguards arrangements with respect to the proposed facility (namely a facility attachment) with the IAEA, the proposing Party shall provide the other Party with a written notification containing the following:
 - (i) The name of the owner or operator of the facility, the facility name and the existing or planned capacity;
 - (ii) The facility location, the type of nuclear material involved, the approximate date of introduction of such nuclear material into the facility and the type of activity to be conducted there;
 - (iii) Where safeguards are required as provided above, a statement that a safeguards arrangement with respect to the proposed facility with the IAEA, containing the safeguards approach and the key elements referred to in subparagraph a of this paragraph, and including any modifications to the key elements as may be agreed to in writing by the Parties prior to the notification, has entered into force, and a description of the key elements contained in that safeguards arrangement; and
 - (iv) A statement that physical protection measures as required by Article 12 of the Agreement will be maintained.
- (e) The receiving Party shall provide the proposing Party with written acknowledgement of the notification of the proposing Party, which shall be limited to a statement that such notification has been received. Such acknowledgment shall be given no later than thirty days after the receipt of the notification.

- 6. The Parties shall exchange annual reports in the context of the implementation of the Administrative Arrangement established pursuant to the requirements of paragraph 1 of Article 19 of the Agreement regarding all enrichment activities conducted at facilities listed in Annex III to this Agreed Minute.
- 7. Either Party may suspend any agreement it has given pursuant to paragraph 2 of Article 11 of the Agreement with respect to facilities listed in Annex III to this Agreed Minute, and the arrangements established under this Section, in whole or in part, to prevent a significant increase in the risk of nuclear proliferation or in the threat to its national security caused by exceptional cases, including as a result of actions identified in Article 17 of the Agreement. The Parties shall consult prior to such suspension at the Cabinet level for the United States of America and at the Ministerial level for the Republic of Korea. Any decision for such suspension shall be taken only at the highest levels of government of the Party making such decision, and shall be notified in writing to the other Party. Any suspension shall only be applied for the minimum period of time necessary to deal with the exceptional case. The suspending Party shall keep under constant review the development of the situation which prompted the decision and shall withdraw such suspension as soon as warranted. In the event of the suspension of the arrangements established under this Section, any advance consents provided pursuant to Article 11 of the Agreement with respect to facilities identified in those arrangements or in Annex III to this Agreed Minute shall be similarly suspended.

FOR THE GOVERNMENT OF THE REPUBLIC OF KOREA

FOR THE GOVERNMENT OF THE UNITED STATES OF AMERICA

ANNEX I

1. Facilities listed pursuant to paragraph 1 of Section 5 of this Agreed Minute

- a. Post Irradiation Examination Facility (PIEF) at Korea Atomic Energy Research Institute(KAERI), Republic of Korea
- b. Irradiated Materials Examination Facility (IMEF) at KAERI, Republic of Korea
- c. Advanced Spent Fuel Conditioning Process Facility (ACPF) at KAERI, Republic of Korea
- d. DUPIC Fuel Development Facility (DFDF) at KAERI, Republic of Korea
- e. Hot Fuel Examination Facility at Idaho National Laboratory, United States of America

2. Facilities listed pursuant to paragraph 2 of Section 5 of this Agreed Minute

- a. Advanced Spent Fuel Conditioning Process Facility (ACPF) at KAERI, Republic of Korea
- b. DUPIC Fuel Development Facility (DFDF) at KAERI, Republic of Korea
- c. Hot Fuel Examination Facility at Idaho National Laboratory, United States of America

ANNEX II

- 1. Research and development facilities listed pursuant to Section 6 of this Agreed Minute
- 2. Demonstration or production facilities listed pursuant to of Section 6 of this Agreed Minute

ANNEX III

Facilities listed pursuant to Section 7 of this Agreed Minute

AGREED MINUTE on High Level Bilateral Commission

During the negotiation of the Agreement for Cooperation between the Government of the Republic of Korea and the Government of the United States of America Concerning Peaceful Uses of Nuclear Energy("the Agreement") signed today, the following understandings, which shall be an integral part of the Agreement, were reached.

- 1. Pursuant to paragraph 2 of Article 18 of the Agreement, the Parties shall form a High Level Bilateral Commission to be led by the Deputy Secretary of Energy for the Government of the United States of America and by the Vice Minister of Foreign Affairs for the Government of the Republic of Korea (collectively, the "Commission Chairs"). The purpose of the High Level Bilateral Commission is to facilitate the Parties' peaceful nuclear and strategic cooperation and on-going dialogue regarding areas of mutual interest in civil nuclear energy, including the civil nuclear fuel cycle. The High Level Bilateral Commission shall meet at least once each year, hosted alternately by the Parties.
- 2. As provided by paragraph 2 of Article 18 of the Agreement, at the direction of the Commission Chairs, working groups in areas of mutual interest shall be formed to consult with each other on spent fuel management, promotion of nuclear exports, assured fuel supply, nuclear security, and any other topics related to peaceful nuclear cooperation mutually agreed to in writing by the Parties.
- 3. The Parties hereby agree on the following specific goals for the initial four working groups:
 - (a) Working Group on Spent Fuel Management Facilitate cooperation on enhancing the safe and secure management of spent fuel, including:
 - (i) Research, development, demonstration and technical cooperation on storage, transportation and disposal of spent fuel.
 - (ii) Joint efforts to diversify options on spent fuel management in each country.

- (iii) Development of advanced technologies to minimize the impact of spent fuel management on the environment, public health, and safety.
- (iv) Cooperation on the effective implementation of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, and other relevant international cooperation mechanisms.
- (v) Exchange of expertise and cooperation in the decommissioning of nuclear power plants.
- (b) Working Group on Promotion of Nuclear Exports and Export Control Cooperation. Facilitate cooperation on the promotion of nuclear exports and on export control cooperation, including:
 - (i) Ways to enhance global nuclear trade and facilitate nuclear trade cooperation between the Parties involving their respective suppliers, operators, utilities and financiers.
 - (ii) Possibilities for expediting export and import licenses and other relevant authorizations, including retransfer authorizations.
 - (iii) Further development of multilateral export control guidelines and their impact on global civil nuclear trade.
 - (iv) Ensuring that government and civil entities are fully informed of nuclear export obligations.
- (c) Working Group on Assured Fuel Supply. Facilitate cooperation on the reliable supply of nuclear fuel, including:
 - (i) Assessments of the long-term sustainability of nuclear energy and its impact on the energy security of the Parties.
 - (ii) Efforts to maintain and enhance the predictability and stability of the nuclear fuel market.
 - (iii) Exchanges of information, assessments and analyses on nuclear fuel markets.
 - (iv) Evaluations of the potential for the unpredictable disruption of nuclear fuel markets and the possibility of mutual assistance in the event of such disruption.
 - (v) Development of bilateral and multilateral mechanisms for the reliable supply of nuclear fuel.
- (d) Working Group on Nuclear Security. Facilitate cooperation on nuclear

security, including:

- (i) Identifying ways to minimize the civil use of high enriched uranium and separated plutonium.
- (ii) Seeking ways to strengthen the global nuclear security legal framework, including outreach efforts to bring into force the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material.
- (iii) Strengthening the efforts on this issue of international organizations having a nuclear security as part of their mission, in particular the United Nations and the International Atomic Energy Agency.
- (iv) Cooperating in global nuclear security initiatives, including the Global Partnership against the Spread of Weapons and Materials of Mass Destruction and the Global Initiative to Combat Nuclear Terrorism.
- (v) Enhancing regional and international cooperation to promote a nuclear security culture, including through the further development of Centers of Excellence.
- (vi) Addressing the emerging threat of cyber terrorism against nuclear facilities.
- (vii)Identifying best practices in the area of physical protection of nuclear materials and facilities.
- 4. Nuclear safety issues are to continue to be addressed through cooperation and consultation between the appropriate nuclear regulatory organizations of the Parties. Information on developments in that cooperative and consultative process may be provided to the High Level Bilateral Commission upon request.
- 5. The Joint Standing Committee referred to in paragraph 3 of Article 19 of the Agreement shall report to the High Level Bilateral Commission. The Steering Committee of the U.S.-ROK Joint Fuel Cycle Study shall report its findings to the High Level Bilateral Commission.
- 6. Each working group shall meet at least once a year and report to an annual meeting of the High Level Bilateral Commission.

- 7. The obligations of the Parties with regard to participation in the activities of the High Level Bilateral Commission and its associated working groups shall be subject to their respective applicable laws and regulations.
- 8. The Parties shall inform each other through diplomatic channels of the designated offices within their appropriate authorities for effective coordination on the activities of the High Level Bilateral Commission and its working groups.

FOR THE GOVERNMENT OF THE REPUBLIC OF KOREA

FOR THE GOVERNMENT OF
THE UNITED STATES OF AMERICA