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TEXT OF A PROPOSED AGREEMENT FOR COOPERATION BETWEEN THE AMERICAN INSTITUTE IN TAIWAN AND THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

A PROPOSED AGREEMENT FOR COOPERATION BETWEEN THE AMERICAN INSTITUTE IN TAIWAN AND THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES CONCERNING PEACEFUL USES OF NUCLEAR ENERGY, PURSUANT TO 42 U.S.C. 2153(b), (d)



JANUARY 8, 2014.—Message and accompanying papers referred to the Committee on Foreign Affairs and ordered to be printed

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To the Congress of the United States:

I am pleased to transmit to the Congress, pursuant to sections 123 b. and 123 d. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2153(b), (d)) (the "Act"), the text of a proposed Agreement for Cooperation Between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office in the United States (TECRO) Concerning Peaceful Uses of Nuclear Energy (the "Agreement"). I am also pleased to transmit my written approval, authorization, and determination concerning the Agreement, and an unclassified Nuclear Proliferation Assessment Statement (NPAS) concerning the Agreement. (In accordance with section 123 of the Act, as amended by title XII of the Foreign Affairs Reform and Restructuring Act of 1998 (Public Law 105–277), a classified annex to the NPAS, prepared by the Secretary of State in consultation with the Director of National Intelligence, summarizing relevant classified information, will be submitted to the Congress separately.) The joint memorandum submitted to me by the Secretaries of State and Energy and a letter from the Chairman of the Nuclear Regulatory Commission (NRC) stating the views of the Commission are also enclosed. An addendum to the NPAS containing a comprehensive analysis of the export control system of Taiwan with respect to nuclear-related matters, including interactions with other countries of proliferation concern and the actual or suspected nuclear, dual-use, or missile-related transfers to such countries, pursuant to section 102A of the National Security Act of 1947 (50 U.S.C. 403–1), as amended, is being submitted separately by the Director of National Intelligence.

The proposed Agreement has been negotiated in accordance with the Act and other applicable law. In my judgment, it meets all applicable statutory requirements and will advance the nonproliferation and other foreign policy interests of the United States.

The proposed Agreement provides a comprehensive framework for peaceful nuclear cooperation with the authorities on Taiwan based on a mutual commitment to nuclear nonproliferation. The proposed Agreement has an indefinite term from the date of its entry-into-force, unless terminated by either party on 1 year's written notice. The proposed Agreement permits the transfer of information, material, equipment (including reactors), and components for nuclear research and nuclear power production. The Agreement also specifies cooperation shall be in accordance with the provisions of the Agreement and applicable legal obligations, including, as appropriate, treaties, international agreements, domestic laws, regulations, and/or licensing requirements (such as those imposed by the NRC in accordance with 10 CFR 110 and the Department of Energy in accordance with 10 CFR 810). It does not permit transfers of Restricted Data, sensitive nuclear technology and facilities, or major critical components of such facilities. The proposed Agree-

ment also prohibits the possession of sensitive nuclear facilities and any engagement in activities involving sensitive nuclear technology in the territory of the authorities represented by TECRO. In the event of termination of the proposed Agreement, key nonproliferation conditions and controls continue with respect to material, equipment, and components subject to the proposed Agreement.

Over the last two decades, the authorities on Taiwan have established a reliable record on nonproliferation and on commitments to nonproliferation. While the political status of the authorities on Taiwan prevents them from formally acceding to multilateral nonproliferation treaties or agreements, the authorities on Taiwan have voluntarily assumed commitments to adhere to the provisions of multilateral treaties and initiatives. The Republic of China ratified the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1970 and ratified the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (the "Biological Weapons Convention" or "BWC") in 1972. The authorities on Taiwan have stated that they will continue to abide by the obligations of the NPT (i.e., those of a non-nuclear-weapon state) and the BWC, and the United States regards them as bound by both treaties. The authorities on Taiwan follow International Atomic Energy Agency standards and directives in their nuclear program, work closely with U.S. civilian nuclear authorities, and have established relationships with mainland Chinese civilian authorities with respect to nuclear safety. A more detailed discussion of the domestic civil nuclear activities and nuclear nonproliferation policies and practices of the authorities on Taiwan, including their nuclear export policies and practices, is provided in the NPAS and in a classified annex to the NPAS submitted separately. As noted above, an addendum to the NPAS containing a comprehensive analysis of the export control system of the authorities on Taiwan with respect to nuclear-related matters is being submitted to you separately by the Director of National Intelligence.

I have considered the views and recommendations of the interested agencies in reviewing the proposed Agreement and have determined that its performance will promote, and will not constitute an unreasonable risk to, the common defense and security. Accordingly, I have approved the Agreement and authorized its execution and urge the Congress to give it favorable consideration.

This transmission shall constitute a submittal for purposes of both sections 123 b. and 123 d. of the Act. My Administration is prepared to begin immediately the consultations with the Senate Foreign Relations Committee and the House Foreign Affairs Committee as provided in section 123 b. Upon completion of the 30 days of continuous session review provided for in section 123 b., the 60 days of continuous session review provided for in section 123 d. shall commence.

BARACK OBAMA.

THE WHITE HOUSE, *January 7, 2014.*

AGREEMENT FOR COOPERATION BETWEEN THE AMERICAN INSTITUTE IN TAIWAN AND THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES CONCERNING PEACEFUL USES OF NUCLEAR ENERGY

The American Institute in Taiwan ("AIT") and the Taipei Economic and Cultural Representative Office in the United States ("TECRO"),

REAFFIRMING their commitment, and that of the authorities they represent, to ensuring that the international development and use of nuclear energy for *peaceful purposes* are carried out under arrangements that will to the maximum possible extent further the objectives of the Treaty on the Non-Proliferation of Nuclear Weapons done at London, Moscow and Washington on July 1, 1968 (hereinafter referred to as "the NPT");

AFFIRMING their support, and that of the authorities they represent, for the safeguards system of the International Atomic Energy Agency ("IAEA"), including the Additional Protocol;

DESIRING to cooperate in the development, use, and control of peaceful uses of nuclear energy;

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

AFFIRMING in particular the 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;

RECOGNIZING in this regard the importance of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, done at Vienna on September 5, 1997, and the Convention on Nuclear Safety, done at Vienna on June 17, 1994;

TAKING NOTE OF the intent of the authorities represented by TECRO to rely on existing international markets as an alternative to the pursuit of enrichment and reprocessing, and the intent of the authorities represented by AIT to support these international markets in order to ensure a reliable supply of the fuel cycle services necessary to implement a peaceful nuclear energy program;

RECALLING the Agreement for Cooperation Between the Government of the United States of America and the Government of the Republic of China Concerning the Civil Uses of Atomic Energy, signed on April 4, 1972, as amended and extended on March 15, 1974 (hereinafter "the 1972 Agreement for Cooperation");

RECALLING also the Agreement Between the International Atomic Energy Agency, the Government of the Republic of China and the Government of the United States of America for the Application of Safeguards, signed on December 6, 1971 (hereinafter "the Safeguards Transfer Agreement");

RECOGNIZING that, in accordance with Sec. 4.(c) of the Taiwan Relations Act (P.L. 96-8, 22 U.S.C. 3301 et seq.), the 1972 Agreement

for Cooperation and the Safeguards Transfer Agreement have continued in force according to their terms;

NOTING that the IAEA continues to apply safeguards under the Safeguards Transfer Agreement to *source material* and *special fissionable material* transferred under the 1972 Agreement for Cooperation;

HAVE AGREED AS FOLLOWS:

ARTICLE 1 - DEFINITIONS

For the purposes of this Agreement and the *Agreed Minute*:

(A) "*Agreed Minute*" means the minute annexed to this Agreement, which is an integral part hereof;

(B) "*Authorized person*" means any individual or any entity subject to the jurisdiction of the authorities represented by either *Party* and authorized by that *Party* to conduct activities subject to this Agreement but does not include the *Parties* to this Agreement or the authorities they represent;

(C) "*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*;

(D) "*Component*" means a component part of *equipment,* or other item so designated by agreement of the *Parties*;

(E) "*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 -- for example, from UF6 to UO2 or from uranium oxide to metal;

(F) "*Decommissioning*" means the actions taken at the end of a facility's useful life to retire the facility from service in a manner that provides adequate protection for the health and safety of the decommissioning workers and the general public, and for the environment. These actions can range from closing down the facility and a minimal removal of *source material* and *special fissionable material* coupled with continuing maintenance and surveillance, to a complete removal of residual radioactivity in excess of levels acceptable for unrestricted use of the facility and its site;

(G) "*Designated representatives*" with respect to AIT refers to the U.S. Department of Commerce, the U.S. Department of Defense, the U.S. Department of Energy, the U.S. Department of State, or the U.S. Nuclear Regulatory Commission, as appropriate, and with respect to TECRO refers to the Taiwan Atomic Energy Council or any successor agencies, as appropriate. In case of a change in its *designated representatives* or designation of additional such *designated representatives*, a *Party* shall inform the other *Party* in writing;

(H) "*Equipment*" means any *reactor*, as a complete unit, other than one designed or used primarily for the formation of plutonium or uranium 233, reactor pressure vessel, reactor calandria, complete reactor control rod drive system, reactor primary coolant pump, on-line reactor fuel

charging and discharging machine, or any other item so designated by agreement of the *Parties*;

(I) "*High enriched uranium*" means uranium enriched to twenty percent or greater in the isotopes 235 or 233;

(J) "*Information*" means scientific, commercial, or technical data or information in any form that is appropriately designated by agreement of the *Parties* to be provided or exchanged under this Agreement, except technical data that is in the public domain;

(K) "*Low enriched uranium*" means uranium enriched to less than twenty percent in the isotopes 235 or 233;

(L) "*Major critical component*" means any part or group of parts essential to the operation of a *sensitive nuclear facility*;

(M) "*Material*" means *source material*, *special fissionable material*, *byproduct material*, radioisotopes other than *byproduct material*, *moderator material*, or any other such substance so designated by agreement of the *Parties*;

(N) "*Moderator material*" means heavy water or graphite or beryllium 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 substance so designated by agreement of the *Parties*;

(O) "*Parties*" means the American Institute in Taiwan (AIT), on behalf of the authorities it represents, and the Taipei Economic and Cultural

Representative Office in the United States (TECRO), on behalf of the authorities it represents;

(P) "*Peaceful purposes*" include the use of *information*, *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. Military purposes shall not include the supply of electricity to a military base from any power network, production of radioisotopes to be used for medical purposes in a military environment for diagnostics, therapy and sterilization, and other similar purposes as may be agreed by the *Parties*;

(Q) "*Person*" means any individual or any entity subject to the jurisdiction of the authorities represented by either *Party* but does not include the *Parties* to this Agreement or the authorities they represent;

(R) "*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;

(S) "*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 the authorities represented by a *Party* that such authorities have declassified or removed from the category of *Restricted Data*;

(T) "*Sensitive nuclear facility*" means any facility designed or used primarily for uranium enrichment, reprocessing of nuclear fuel, heavy water production, or fabrication of nuclear fuel containing plutonium;

(U) "*Sensitive nuclear technology*" means any *information* (including *information* incorporated in *equipment* or an important *component*) that is not in the public domain and that is important to the design, construction, fabrication, operation, or maintenance of any *sensitive nuclear facility*, or any other such *information* that may be so designated by agreement of the *Parties*;

(V) "*Source material*" means (1) uranium, thorium, or any other material so designated by agreement of the *Parties*, or (2) ores containing one or more of the foregoing materials in such concentration as the *Parties* may agree from time to time;

(W) "*Special fissionable material*" means (1) plutonium, uranium 233, or uranium enriched in the isotope 235, or (2) any other material so designated by agreement of the *Parties*.

ARTICLE 2 - SCOPE OF COOPERATION

1. Cooperation in the development and use of nuclear energy for *peaceful purposes* under this Agreement shall be in accordance with the provisions of this Agreement and applicable legal obligations, including, as appropriate, treaties, international agreements, domestic laws, regulations, and/or license requirements.

2. Transfer of *information*, *material*, *equipment*, and *components* under this Agreement may be undertaken directly between the *Parties* or through their *designated representatives* or through other *authorized persons*. Such transfers shall be subject to this Agreement and to such additional terms and conditions as may be agreed by the *Parties*.

3. The *Parties*, through their *designated representatives* or through other *authorized persons*, intend to cooperate in the following areas:

(A) Development of requirements for grid-appropriate power *reactors* and fuel service arrangements for the authorities represented by TECRO;

(B) Promotion of the establishment of a reliable source of nuclear fuel for future civil nuclear *reactors* deployed within the territory of the authorities represented by TECRO;

(C) Development of the use of civil nuclear energy in a manner that supports global efforts to prevent nuclear proliferation;

(D) Civil nuclear energy training, human resource and infrastructure development, participation in international and regional research, and appropriate application of civil nuclear energy, and related energy technology, consistent with the highest standards of safety, security and nonproliferation;

(E) Application of radioisotopes and radiation in industry, agriculture, medicine, and the environment;

(F) Radiation protection and management of radioactive waste and spent fuel;

(G) Promotion of participation in international conferences and activities related to safety, security, and safeguards;

(H) Promotion of participation in cooperation relevant to compensation for nuclear damage; and

(I) Other areas of cooperation as may be determined by agreement of the *Parties*.

4. Cooperation may be undertaken by the *Parties* or their *designated representatives* or other *authorized persons* in the following forms:

(A) Exchange of scientific and technical *information* and documentation;

(B) Exchange and training of personnel;

(C) Organization of symposia and seminars;

(D) Provision of relevant technical assistance and services;

(E) Transfers of *material*, *equipment*, and *components*; and

(F) Other forms of cooperation as may be mutually agreed by the *Parties*.

ARTICLE 3 - 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 reports, data banks, computer programs, conferences, visits, and assignments of staff to facilities. Fields that may be covered may include, but shall not be limited to, the following:

(A) Development, design, construction, operation, maintenance and use of *reactors*, reactor experiments, and *decommissioning*;

(B) The use of *material* in physical and biological research, medicine, agriculture, and industry;

(C) Fuel cycle studies of ways to meet future world-wide civil nuclear needs, including multilateral approaches to guaranteeing nuclear fuel supply and appropriate techniques for management and treatment of nuclear wastes;

(D) Safeguards and physical protection of *material*, *equipment*, and *components*;

(E) Health, safety, and environmental considerations related to the foregoing; and

(F) Assessing the role nuclear power may play in energy plans for the territories of the authorities represented by the *Parties*.

2. This Agreement does not require the transfer of any *information* that the *Parties*, their *designated representatives*, or the authorities represented by the *Parties* are not permitted to transfer under applicable legal obligations.

3. *Restricted Data* and *sensitive nuclear technology* shall not be transferred under this Agreement.

ARTICLE 4 - TRANSFER OF *MATERIAL*, *EQUIPMENT*, AND *COMPONENTS*

1. *Material*, *equipment*, and *components* may be transferred for applications consistent with this Agreement. *Special fissionable material* transferred to the territory of the authorities represented by TECRO under this Agreement shall be *low enriched uranium*, except (a) as provided in paragraph 4 or, (b) if agreed by the *Parties*, *special fissionable material* contained in spent fuel or waste being transferred to support spent fuel management and disposition. *Sensitive nuclear facilities* and *major critical components* thereof shall not be transferred under this Agreement.

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, or for such other purposes as may be agreed by the *Parties*.

3. The quantity of *special fissionable material* transferred under this Agreement shall not at any time be in excess of that quantity the *Parties* agree is necessary for any of the following purposes: use in the loading of *reactors* or in reactor experiments; the reliable, efficient, and continuous operation of *reactors* or conduct of reactor experiments; the storage of *special fissionable material* necessary for the efficient and continuous

operation of *reactors* or conduct of reactor experiments; the transfer of irradiated nuclear *material* for storage or disposition; and the accomplishment of such other purposes as may be agreed by the *Parties*.

4. Small quantities of *special fissionable material* may be transferred for use as samples, standards, detectors, targets, or for such other purposes as the *Parties* may agree. Transfers pursuant to this paragraph shall not be subject to the quantity limitations in paragraph 3.

5. AIT, through its *designated representatives*, shall endeavor to take such actions as are necessary and feasible to ensure a reliable and timely supply of nuclear fuel to the authorities represented by TECRO, including the export of nuclear fuel on a timely basis during the period of this Agreement. AIT, through its *designated representatives*, shall also consider such actions as are feasible to assist the authorities represented by TECRO in safe and secure management, storage and disposition of irradiated *special fissionable material* produced through the use of *material* or *equipment* transferred pursuant to this Agreement.

ARTICLE 5 - 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 *material* or *equipment* so transferred shall only be stored in a facility to which the *Parties* agree.

2. *Material*, *equipment*, and *components* transferred pursuant to this Agreement and any *special fissionable material* produced through the use of any such *material* or *equipment* shall not be transferred to anyone who is not an *authorized person* or, unless the *Parties* agree, beyond the territorial jurisdiction of the authorities represented by the relevant *Party*.

3. In order to facilitate management of spent fuel and management of *source material* and *special fissionable material*, *material* transferred or *special fissionable material* produced through the use of *material* or *equipment* transferred pursuant to this Agreement may be transferred to a third party as agreed by the *Parties*, or, if AIT agrees and designates a storage or disposition option, to the territory of the authorities represented by AIT. In the event of transfer to the territory of the authorities represented by AIT, the *Parties* shall make appropriate implementing arrangements.

ARTICLE 6 - REPROCESSING, OTHER ALTERATION IN FORM OR CONTENT, AND ENRICHMENT

1. *Material* transferred pursuant to this Agreement and *material* used in or produced through the use of *material* or *equipment* so transferred shall not be reprocessed unless the *Parties* agree.

2. Plutonium, uranium 233, *high enriched uranium* and irradiated *source* or *special fissionable material* transferred pursuant to this Agreement or used in or produced through the use of *material* or *equipment* so transferred shall not be otherwise altered in form or content, except by irradiation or further irradiation, unless the *Parties* agree.

3. Uranium transferred pursuant to this Agreement or used in any *equipment* so transferred shall not be enriched after transfer unless the *Parties* agree.

ARTICLE 7 - SENSITIVE NUCLEAR FACILITIES WITHIN THE TERRITORY OF THE AUTHORITIES REPRESENTED BY TECRO

TECRO shall ensure that TECRO, the authorities represented by TECRO, or any person authorized by or who acts with the knowledge of the authorities represented by TECRO within the territory of the authorities represented by TECRO shall not possess *sensitive nuclear facilities* or otherwise engage in activities related to the enrichment or reprocessing of *material* or to the alteration in form or content (except by irradiation or further irradiation or, if agreed by the *Parties*, post-irradiation examination or spent fuel stabilization) of plutonium, uranium-233, *high enriched uranium* or irradiated *source material* or *special fissionable material.*

ARTICLE 8 - PHYSICAL PROTECTION

1. Adequate physical protection shall be maintained with respect to any *source material* or *special fissionable material* and *equipment* transferred pursuant to this Agreement and any *special fissionable material* used in or produced through the use of *material* or *equipment* so transferred.

2. To comply with the requirement in paragraph 1, each *Party*, through its *designated representatives*, shall ensure the application, at a minimum, of measures in accordance with (i) levels of physical protection at least equivalent to the recommendations published in IAEA document INFCIRC/225/Rev. 5 entitled "The Physical Protection of Nuclear Material and Nuclear Facilities" and in any subsequent revisions of that document the *Parties* agree to apply and (ii) the provisions of the Convention on the Physical Protection of Nuclear Material, done at Vienna and New York on March 3, 1980, and any amendments to the Convention that the *Parties* agree to apply.

3. The adequacy of physical protection measures maintained pursuant to this Article shall be subject to review and consultations by the *Parties* from time to time and whenever either *Party*, in consultation with its *designated representatives*, is of the view that revised measures may be required to maintain adequate physical protection.

4. The *Parties* shall keep each other informed through appropriate channels of those *designated representatives* having responsibility for ensuring that levels of physical protection for *source material* and *special fissionable material* in the territory or under the jurisdiction or control of those authorities are adequately met and having responsibility for coordinating response and recovery operations in the event of unauthorized use or handling of *material* subject to this Article. The *Parties* shall inform each other, as well, of the designated points of contact within their *designated representatives* to cooperate on matters of transportation beyond the jurisdiction of the authorities represented by the *Parties* and other matters of mutual concern.

5. The provisions of this Article shall be implemented in such a manner as to avoid undue interference in the nuclear activities within the territories or under the jurisdiction or control of the authorities represented by the *Parties*, and to be consistent with prudent management practices required for the safe and economic conduct of the nuclear programs within the territories or under the jurisdiction or control of those authorities.

ARTICLE 9 - NO EXPLOSIVE OR MILITARY APPLICATION

Material, *equipment*, and *components* transferred pursuant to this Agreement and *material* used in or produced through the use of any *material*, *equipment*, or *components* so transferred shall not be used for

any nuclear explosive device, for research on or development of any nuclear explosive device, or for any military purpose.

ARTICLE 10 - SAFEGUARDS

1. Cooperation under this Agreement shall require the application of IAEA safeguards with respect to all nuclear activities within the territory of the authorities represented by TECRO, under the jurisdiction of those authorities or carried out under the control of those authorities anywhere. Implementation of the Safeguards Transfer Agreement with respect to all such nuclear activities shall be considered to fulfill this requirement.

2. *Source material, special fissionable material, moderator material,* and *equipment* transferred to the territory, jurisdiction or control of the authorities represented by TECRO pursuant to this Agreement and any *source material* or *special fissionable material* used in or produced through the use of *material, equipment,* or *components* so transferred shall be subject to safeguards in accordance with the terms of the Safeguards Transfer Agreement and to the measures provided for in the Model Additional Protocol (published in INFCIRC/540 (Corrected)).

3. *Source material* or *special fissionable material* transferred to the territory, jurisdiction, or control of the authorities represented by AIT pursuant to this Agreement and any *source material* or *special fissionable material* used in or produced through the use of any *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, done at Vienna on November 18, 1977, which entered into force on December 9, 1980, and the Additional Protocol thereto, which entered into force on January 6, 2009 (hereinafter referred to as the "IAEA Safeguards Agreement").

4. If either *Party* becomes aware of circumstances that demonstrate that the IAEA for any reason is not or will not be applying safeguards in accordance with the Safeguards Transfer Agreement and the measures described in paragraph 2 of this article, to ensure effective continuity of safeguards the *Parties* shall consult and immediately enter into arrangements involving the IAEA or solely between themselves that conform with IAEA safeguards principles and procedures, that provide assurance equivalent to that intended to be secured by the system they replace, and that conform with the coverage required by paragraph 2 of this article.

5. In the event that the IAEA Safeguards Agreement of this Article is not being applied, the authorities represented by AIT shall enter into an agreement with the IAEA for the application of safeguards that provides for effectiveness and coverage equivalent to that required by the IAEA Safeguards Agreement, 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 IAEA Safeguards Agreement.

6. Each *Party*, acting through its *designated representatives*, shall take such measures as are necessary to maintain and facilitate the application of safeguards applicable to it provided for under this Article.

7. Each *Party*, acting through its *designated representatives*, shall establish and maintain a system of accounting for and control of *source material* and *special fissionable material* transferred pursuant to this Agreement and *source material* and *special fissionable material* used in or produced through the use of any *material*, *equipment*, or *components* so transferred and shall use this system of accounting and control to establish inventories of all *source material* and *special fissionable material* subject to this Agreement as set forth in an Administrative Arrangement established pursuant to Article 14. 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 that the *Parties* agree to apply.

8. Each *Party*, acting through its *designated representatives*, shall establish and maintain an inventory of *moderator material,* tritium, other *material*, *equipment*, and *components* subject to this Agreement as set forth in an Administrative Arrangement established pursuant to Article 14.

9. Upon the request of either *Party*, the other *Party* shall report to the requesting *Party*, in the manner provided for in the Administrative Arrangement referred to in Article 14 of this Agreement, on the status of all inventories of *material, equipment, and components* subject to this Agreement. The *Parties* further agree that the IAEA may at the request of either *Party* supplement such bilateral reporting by reporting to either *Party* or their *designated representatives* on the status of such inventories, as applicable.

10. *Material, equipment*, and *components* subject to this Agreement shall remain subject to this Agreement so long as they remain in the territory of the authorities represented by the *Party* concerned or under the jurisdiction or control of those authorities anywhere or until such time as the *Parties* agree that such *material*, *equipment*, or *components* are no longer usable for any nuclear activity relevant from the point of view of safeguards.

11. The provisions of this Article shall be implemented in such a manner as to avoid hampering, delay, or undue interference in the nuclear activities within the territories or under the jurisdiction or control of the authorities represented by the *Parties* and so as to be consistent with prudent management practices required for the safe and economic conduct of such nuclear programs.

ARTICLE 11 - CESSATION OF COOPERATION AND RIGHT OF RETURN

1. If at any time following entry into force of this Agreement:

(A) either *Party*, itself or through its *designated representatives*, materially violates the provisions of Article 5, 6, 7, 8, 9, or 10 or if the authorities represented by either *Party* take actions that would constitute a material violation of any of those provisions if taken by that *Party*; or

(B) either *Party*, itself or through its *designated representatives*, or the authorities represented by either *Party*, terminate, abrogate, or materially violate a safeguards agreement with the IAEA;

the other *Party* shall have the rights to cease further cooperation under this Agreement and to require the return of any *material*, *equipment*, and *components* transferred under this Agreement and any *special fissionable material* produced through their use.

2. If at any time following entry into force of this Agreement, TECRO, the authorities represented by TECRO, or any *person* authorized by or who acts with the knowledge of the authorities represented by TECRO and who is either within the territory of the authorities represented by TECRO or under their jurisdiction or control detonates a nuclear explosive device, AIT shall have the same rights as specified in paragraph 1 above.

3. If either *Party* exercises its rights under this Article to require the return of any *material*, *equipment*, or *components*, it shall promptly, after removal from the territory of the authorities represented by the other *Party*, reimburse the other *Party* for the fair market value of such *material*, *equipment*, or *components*.

4. In determining whether to exercise its rights under paragraph 1 of this Article based on a "material violation", a *Party* shall consider whether the facts giving rise to the right to take such action in accordance with paragraph 1 were caused deliberately. In the event that it finds such material violation not to be deliberate, and to the extent that it judges that such material violation can be rectified, the *Party* deciding whether to exercise its rights under paragraph 1 of this Article shall endeavor, subject to the laws and regulations of the authorities represented by that *Party*, to afford the other *Party* an opportunity to cure the violation within a reasonable period.

ARTICLE 12 - CONSULTATIONS, REVIEW AND ENVIRONMENTAL PROTECTION

1. The *Parties* undertake to consult, directly or through their *designated representatives*, at the request of either *Party* regarding the implementation of this Agreement and the development of further cooperation in the field of peaceful uses of nuclear energy.

2. This Agreement shall be reviewed at any time at the request of either *Party* to take into account regional and international nonproliferation developments, international technological developments and institutional arrangements, the energy needs of the territory of the authorities represented by TECRO, or other circumstances that may warrant such a review. The terms of this Agreement may, however, only be amended as agreed between the *Parties*.

3. The *Parties* shall consult, directly or through their *designated representatives*, with regard to activities under this Agreement, to identify the international environmental implications arising from such activities and shall cooperate, through their *designated representatives*, 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 13 - SETTLEMENT OF DISPUTES

Any dispute in relation to this Agreement, including concerning the interpretation or implementation of its provisions, shall be promptly negotiated by the *Parties* with a view to resolving that dispute.

ARTICLE 14 - ADMINISTRATIVE ARRANGEMENT

1. The *Parties* shall, by mutual consent, establish an Administrative Arrangement in order to provide for the effective implementation of the provisions of this Agreement.

2. An Administrative Arrangement established pursuant to this Article may be revised in writing by the *Parties*.

3. The principles of fungibility, proportionality, and equivalence shall apply to *source material, special fissionable material,* and *moderator material* subject to this Agreement. Detailed provisions for applying these principles, including provisions for the tracking of *source material* and *special fissionable material* subject to this Agreement, shall be set

forth in an Administrative Arrangement established pursuant to paragraph 1 above.

ARTICLE 15 - ENTRY INTO FORCE AND DURATION

1. This Agreement shall enter into force on the date on which the *Parties* exchange letters informing each other that all applicable requirements for its entry into force have been completed, or on the date of expiration or termination of the 1972 Agreement for Cooperation, whichever is later.

2. This Agreement shall be deemed by the *Parties* as a new superseding agreement for cooperation within the meaning of Section 1(c) of the Safeguards Transfer Agreement.

3. This Agreement shall remain in force indefinitely unless terminated by either *Party* on one year's written notice to the other *Party*. Prior to termination of this Agreement, the *Parties* shall review this Agreement in accordance with the provisions of Article 12.2.

4. Notwithstanding the termination or expiration of this Agreement or any cessation of cooperation hereunder for any reason, Articles 5, 6, 7, 8, 9, 10, and 11 and the *Agreed Minute* shall continue in effect so long as any *material*, *equipment*, or *components* subject to these articles remains in the territory of the authorities represented by the *Party* concerned or under the jurisdiction or control of those authorities anywhere, or until such time as the *Parties* agree that such *material*, *equipment*, or *components* are no longer usable for any nuclear activity relevant from the point of view of safeguards.

IN WITNESS WHEREOF the undersigned, being duly authorized, have signed this Agreement.

DONE at Washington, this 20th day of December, 2013, in duplicate, in the English and Chinese languages, both texts being equally authentic.

FOR THE AMERICAN INSTITUTE IN TAIWAN:

Managing Director

FOR THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES:

AGREED MINUTE

During the negotiation of the Agreement for Cooperation between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office in the United States (TECRO) Concerning Peaceful Uses of Nuclear Energy ("the Agreement") signed today, the following understandings, which shall be an integral part of the Agreement, were reached.

The provisions of the Agreement shall not be used for the purpose of securing unfair commercial or industrial advantages, of restricting trade to the disadvantage of *persons* from the territory of the authorities represented by either *Party*, or of hampering the commercial or industrial interests, whether international or domestic, of the authorities represented by either *Party*.

1. Coverage of Agreement

a. At the time of entry into force of the Agreement, all *source material, special fissionable material,* minor actinides separated from *special fissionable material, moderator material,* tritium, and *equipment* in all nuclear activities in the territory or under the jurisdiction or control of the authorities represented by TECRO shall be subject to the Agreement as though such *material* or *equipment* had been transferred under the Agreement to the territory of the authorities represented by TECRO or to their jurisdiction or control.

b. After entry into force of the Agreement, no *source material, special fissionable material,* minor actinides separated from *special fissionable material, moderator material,* tritium, *equipment,* or *components* for use in nuclear activities shall be produced, developed, or

manufactured in the territory of, permitted to enter the territory of, or be transferred to the jurisdiction or control of, the authorities represented by TECRO, without the prior written consent of both *Parties*. Consent of the *Parties* is hereby granted for the production of *special fissionable material* from *material*, *equipment*, or *components* for which the prior written consent of the *Parties* required by this paragraph has already been granted; provided, however, that this consent does not constitute the agreement of the *Parties* required by Article 6 of the Agreement for the activities described therein.

c. After entry into force of the Agreement, all *source material*, *special fissionable material*, minor actinides separated from *special fissionable material*, *moderator material*, tritium, and *equipment* (regardless of origin) produced, developed, or manufactured in the territory of, or that are transferred for use in nuclear activities to the territory, jurisdiction, or control of the authorities represented by TECRO shall, upon the prior written consent of both *Parties* referred to in paragraph b. above, be subject to the Agreement and included in the inventories required to be established pursuant to Article 10, paragraphs 7 and 8, to the extent provided in those paragraphs.

d. After entry into force of the Agreement, all *components*, and all *material* not covered by paragraph c. transferred from the territory, jurisdiction, or control of the authorities represented by AIT to the territory, jurisdiction, or control of the authorities represented by TECRO shall be regarded as having been transferred pursuant to the Agreement only upon a request by AIT to TECRO and confirmation in advance of the transfer by TECRO to AIT that such *components* and *material* shall be subject to the Agreement and included in the inventory required to be established pursuant to Article 10, paragraph 8.

e. After entry into force of the Agreement, *components* that are transferred to the territory, jurisdiction, or control of the authorities represented by TECRO from anywhere other than the territory,

jurisdiction, or control of the authorities represented by AIT, or developed or manufactured in the territory of the authorities represented by TECRO shall be made subject to the Agreement and included in the inventory required to be established pursuant to Article 10, paragraph 8 only at the request of AIT.

f. After entry into force of the Agreement, *material*, *equipment*, and *components* transferred from the territory, jurisdiction, or control of the authorities represented by TECRO to the territory, jurisdiction or control of the authorities represented by AIT, whether directly or through a third territory, shall be regarded as having been transferred pursuant to the Agreement only upon request in advance by TECRO to AIT and confirmation by AIT to TECRO that such *material*, *equipment*, or *components* shall be subject to the Agreement.

g. With respect to the definition of "*Restricted Data*" in paragraph (S) 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.*"

h. With respect to paragraph 1 of Article 2 of the Agreement, AIT intends to notify TECRO, where feasible, of any international agreement entered into by the authorities represented by AIT that AIT believes will significantly impact the peaceful nuclear program within the territory of the authorities represented by TECRO, including the supply of nuclear fuel cycle services to support the operation of nuclear *reactors* for the peaceful use of nuclear energy.

2. Safeguards

a. If either *Party* becomes aware of circumstances referred to in Paragraph 4 of Article 10 of the Agreement, AIT shall have the rights listed below, to be implemented through its *designated representatives*, 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 of Article 10 of the Agreement:

i. 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 *material* so transferred or any *special fissionable material* used in or produced through the use of such *material* or *equipment*;

ii. To require the maintenance and production of records and of relevant reports for the purpose of assisting in ensuring accountability for *material* transferred pursuant to the Agreement and any *source material* or *special fissionable material* used in or produced through the use of any *material*, *equipment*, or *components* so transferred; and

iii. To designate personnel acceptable to TECRO, who shall have access to all places and data necessary to account for the *material* referred to in paragraph ii. of this Section 2.a., to inspect any *equipment* or facility referred to in paragraph i. of this Section 2.a., and to install any devices and make such independent measurements as may be deemed necessary to account for such *material*. TECRO shall not unreasonably withhold its acceptance of personnel designated by AIT under this paragraph. Such personnel shall, if TECRO requests, be accompanied by personnel designated by TECRO.

b. Upon the request of AIT, the IAEA shall be authorized to make available to AIT or its *designated representatives* requested *information* on the implementation of the Safeguards Transfer Agreement or other applicable safeguards agreement with the IAEA within the scope of cooperation under the Agreement.

3. Retransfers

a. The *Parties* agree that irradiated *source material* or *special fissionable material* subject to Article 5 and Article 6 of the Agreement may be transferred from the territory of the authorities represented by TECRO to France, or other countries or destinations as may be agreed upon in writing by the *Parties* for storage and reprocessing. All such transfers described in this paragraph a. of Section 3 shall be in compliance with the policies, laws, and regulations of the recipient country or destination, including any requirement that indicates a provisional period for the receipt and treatment of such irradiated *source material* or *special fissionable material* or that the waste produced as a result of the reprocessing be returned to the territory of the authorities represented by TECRO.

b. All such transfers described in this paragraph a. of Section 3 shall be subject to the following conditions:

i. Prior to any such transfer, TECRO shall provide AIT with at least thirty (30) days advance notice of a proposed transfer to allow the authorities represented by AIT sufficient time to obtain confirmation from the receiving country or destination or, in the case of a proposed transfer to a country that is a member of the European Atomic Energy Community (EURATOM), from EURATOM, that *source material* and *special fissionable material* to be transferred will be held within EURATOM (if the transfer is

to a EURATOM member country) or the receiving country or destination subject to the terms and conditions of an agreement for peaceful nuclear cooperation to which the authorities represented by AIT are party and which authorizes nuclear exports from the jurisdiction of the authorities represented by AIT to EURATOM or to that country or destination, as appropriate. TECRO shall not proceed with the proposed retransfer until AIT notifies TECRO of the receipt of such confirmation.

ii. TECRO through its *designated representatives* shall keep records of any such transfers to France or any other country or destination as may be agreed upon in writing by the *Parties* and shall upon shipment notify AIT through its *designated representatives* of each transfer.

iii. The detailed provisions for such notifications and records shall be described in the Administrative Arrangement referred to in Article 14 of this Agreement.

c. The transfer of any *special fissionable material* recovered from any such reprocessing described in paragraph a. to the territory of the authorities represented by TECRO shall require written agreement of the *Parties* and shall be subject to the following conditions:

i. Any such *special fissionable material* returned to the territory of the authorities represented by TECRO shall be subject to this Agreement;

ii. Any *special fissionable material* recovered from any such reprocessing shall be transferred in the form as agreed by the *Parties*; and

iii. No later than 60 days prior to each shipment to the territory of the authorities represented by TECRO of any *special fissionable material* recovered from any such reprocessing, TECRO shall provide AIT with a written notification that shall include a statement advising that the measures arranged for the international transport are in accordance with the provisions of the Convention on the Physical Protection of Nuclear Material and its subsequent amendments that the *Parties* agree to apply.

d. The foregoing agreement regarding retransfers set forth in paragraphs a. and c. of this Section 3 may be suspended or withdrawn in whole or in part by either *Party* if that *Party* considers that one or more of the above conditions is not satisfied, or if it considers that exceptional circumstances of concern from a non-proliferation or security standpoint so require. To the extent that time and circumstances permit, the *Parties* shall consult prior to any such suspension or withdrawal. Such exceptional circumstances include, but are not limited to, a determination by either *Party* that the approval cannot be continued without a significant increase of the risk of proliferation or without jeopardizing the security of the territory of the authorities it represents.

e. The provisions of Section 3 concerning spent fuel retransfer do not limit the right of the *Parties* to agree to additional activities pursuant to the Agreement.

4. Reprocessing, Other Alteration in Form or Content, Enrichment, Storage, and Disposition

a. With respect to Article 5 and Article 6 of the Agreement, any enrichment of uranium transferred pursuant to the Agreement to which the *Parties* may agree, any reprocessing or other alteration in form or content (except for post-irradiation examination or spent fuel

conditioning) of irradiated *source material* or *special fissionable material* used in or produced through the use of *equipment* or *material* transferred pursuant to the Agreement to which the *Parties* may agree, and any storage of *special fissionable material* (except for *low enriched uranium*, *special fissionable material* contained in irradiated fuel for *reactors*, and small quantities of *special fissionable material* transferred pursuant to paragraph 4 of Article 4 of the Agreement) will take place outside the territory of the authorities represented by TECRO, in such country and facility as may be agreed by the *Parties*. The disposition of any such *special fissionable material* that may result from any of the foregoing processes or any such *special fissionable material* that is stored outside the territory of the authorities represented by TECRO will be subject to mutual agreement of the *Parties*.

b. The implementation of AIT's rights under Article 5 and Article 6 of the Agreement to consent to the activities covered by those articles will be guided by nonproliferation and safeguards considerations as well as technological and economic developments. Such implementation will not be conducted with the intent to gain any commercial or economic advantage from withholding consent and will be carried out with due consideration to the operational and economic requirements of programs and facilities within the territory of the authorities represented by TECRO.

c. The disposition of any *special fissionable material* transferred to the territory of the authorities represented by TECRO pursuant to the Agreement, and any *special fissionable material* used in or produced through the use of any *material* or *equipment* so transferred, shall require agreement of the *Parties* as provided for in Article 5 and Article 6 of the Agreement. Notwithstanding Article 5 and Article 6 of the Agreement, in the event that AIT considers that exceptional circumstances of concern from a nonproliferation standpoint so require, it may require that the disposition of any *special fissionable material* which is subject to the Agreement in the territory of the authorities represented by TECRO be in a third territory agreed to by the *Parties* or, if the authorities represented

by AIT are prepared to accept such *special fissionable material*, within the territory of such authorities. If disposition is in the territory of the authorities represented by AIT, the implementing arrangements referred to below shall include reimbursement to TECRO of the fair market value of such *special fissionable material.*

d. In the event that AIT exercises its right under this *Agreed Minute* to require disposition of *special fissionable material* in another country or in the territory of the authorities represented by AIT, or exercises its rights under Article 11 of the Agreement to require the return of any *material*, *equipment*, or *components*, the *Parties* shall make appropriate administrative implementing arrangements, and such *material*, *equipment*, or *components* shall not be subject to any further agreement between the *Parties*, notwithstanding Article 5 and Article 6 of the Agreement.

FOR THE AMERICAN INSTITUTE IN TAIWAN

Barbara J. Sampson
Managing Director

FOR THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES

Pu-tsung Lai

AMERICAN INSTITUTE IN TAIWAN
1700 N. Moore Street
Suite 1700
Arlington, Virginia 22209
Tel: (703) 525-8474
Fax: (703) 841-1385

December 20, 2013

Dr. King Pu-tsung
Representative
Taipei Economic and Cultural Representative
Office in the United States
4201 Wisconsin Avenue, N.W.
Washington, D.C. 20016

Dear Dr. King:

I am writing in reference to discussions between representatives of the authorities represented by the Taipei Economic and Cultural Representative Office in the United States (TECRO) and the authorities represented by the American Institute in Taiwan (AIT) in the course of the negotiation of the proposed Agreement for Cooperation Between the Taipei Economic and Cultural Representative Office in the United States and the American Institute in Taiwan Concerning Peaceful Uses of Nuclear Energy (the "Agreement for Cooperation") with regard to peaceful nuclear cooperation between TECRO, the authorities represented by TECRO and any authorized person within the territory of the authorities represented by TECRO and certain countries and individuals within those countries or under the jurisdiction of those countries. AIT recalls the following assurances from TECRO:

- The authorities represented by TECRO are committed to pursuing a civil nuclear program in a manner consistent with the spirit and letter of the Treaty on the Non-Proliferation of Nuclear Weapons ("NPT").
- The authorities represented by TECRO are committed to cooperating only with responsible states in executing Taiwan's civil nuclear programs and to adhering to the highest standards of nonproliferation.
- The authorities represented by TECRO are abiding by and intend to continue to abide by the provisions of the NPT and the United Nations Security Council Resolutions addressing nuclear activities of concern.

- The authorities represented by TECRO therefore do not intend to engage in any nuclear cooperation, to the extent the following information is available to TECRO, with any states that are subject to UN Security Council Chapter VII measures related to proliferation-sensitive nuclear activities, weapons of mass destruction-related activities, or activities related to the development of nuclear weapon delivery systems, such as ballistic missile-related programs; with any persons or entities designated for sanctions by the UN; or with any states that are in material non-compliance with International Atomic Energy Agency (IAEA) safeguards agreements or that have been identified by the IAEA Director General to the IAEA Board of Governors as having failed to provide the IAEA the level of cooperation required to resolve any outstanding questions in relation to the safeguards obligations of such state.
- The authorities represented by TECRO intend to engage in cooperation with third parties in the peaceful uses of nuclear energy consistent with the Guidelines of the Nuclear Suppliers Group (INFCIRC/254/Parts 1 and 2, as amended), and its associated understandings.

The authorities represented by AIT wish to recognize these assurances as reflecting the strong nonproliferation policies of the authorities represented by TECRO.

In view of the fact that the authorities represented by TECRO are not represented in the United Nations, at the IAEA, or in conferences of the Parties to the NPT, AIT wishes to assure TECRO that it will advise, as necessary and to the extent consistent with the obligations and commitments of the authorities represented by AIT, TECRO of relevant actions taken in the United Nations, at the IAEA, or by the Parties to the NPT relating to the aforementioned assurances.

AIT wishes to inform TECRO that its letter of December 20, 2013, and this response will be included in the set of documents submitted to Congress in connection with Congressional review of the Agreement for Cooperation.

Sincerely,

Barbara J. Schrage
Managing Director, AIT

駐美國台北經濟文化代表處
Taipei Economic and Cultural Representative Office
in the United States
4201 Wisconsin Avenue, N.W., Washington, D.C. 20016
Tel: (202) 895-1800

December 20, 2013

Managing Director Barbara J. Schrage
American Institute in Taiwan
1700 North Moore Street
Arlington, VA 22209

Dear Managing Director Schrage,

I am writing in reference to discussions between representatives of the authorities represented by the Taipei Economic and Cultural Representative Office in the United States (TECRO) and the authorities represented by the American Institute in Taiwan (AIT) in the course of the negotiation of the proposed Agreement for Cooperation Between the Taipei Economic and Cultural Representative Office in the United States and the American Institute in Taiwan Concerning Peaceful Uses of Nuclear Energy (the "Agreement for Cooperation") with regard to peaceful nuclear cooperation between TECRO, the authorities represented by TECRO and any authorized person within the territory of the authorities represented by TECRO and certain countries and individuals within those countries or under the jurisdiction of those countries. In this regard, TECRO wishes to assure AIT as follows:

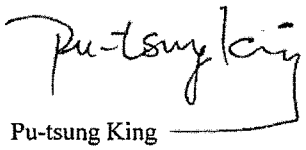
- The authorities represented by TECRO are committed to pursuing a civil nuclear program in a manner consistent with the spirit and letter of the Treaty on the Non-Proliferation of Nuclear Weapons ("NPT").
- The authorities represented by TECRO are committed to cooperating only with responsible states in executing Taiwan's civil nuclear programs and to adhering to the highest standards of nonproliferation.

- The authorities represented by TECRO are abiding by and intend to continue to abide by the provisions of the NPT and the United Nations Security Council Resolutions addressing nuclear activities of concern.

- The authorities represented by TECRO therefore do not intend to engage in any nuclear cooperation, to the extent the following information is available to TECRO, with any states that are subject to UN Security Council Chapter VII measures related to proliferation-sensitive nuclear activities, weapons of mass destruction-related activities, or activities related to the development of nuclear weapon delivery systems, such as ballistic missile-related programs; with any persons or entities designated for sanctions by the UN; or with any states that are in material non-compliance with International Atomic Energy Agency (IAEA) safeguards agreements or that have been identified by the IAEA Director General to the IAEA Board of Governors as having failed to provide the IAEA the level of cooperation required to resolve any outstanding questions in relation to the safeguards obligations of such state.

- The authorities represented by TECRO intend to engage in cooperation with third parties in the peaceful uses of nuclear energy consistent with the Guidelines of the Nuclear Suppliers Group (INFCIRC/254/Parts 1 and 2, as amended), and its associated understandings.

Sincerely,



Pu-tsung King

Representative

Taipei Economic and Cultural Representative Office
In the United States

Presidential Determination No. 2014–06

THE WHITE HOUSE,
Washington, DC, December 20, 2013.

Memorandum for the Secretary of State, the Secretary of Energy.

Subject: Proposed Agreement for Cooperation Between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States Concerning Peaceful Uses of Nuclear Energy

I have considered the proposed Agreement for Cooperation Between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States Concerning Peaceful Uses of Nuclear Energy, along with the views, recommendations, and statements of the interested agencies.

I have determined that the performance of the Agreement will promote, and will not constitute an unreasonable risk to, the common defense and security. Pursuant to section 123 b. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2153(b)), I hereby approve the proposed Agreement and authorize the Secretary of State to arrange for its execution.

The Secretary of State is authorized to publish this determination in the *Federal Register*.

BARACK OBAMA.

NUCLEAR PROLIFERATION ASSESSMENT STATEMENT

Pursuant to Section 123 a. of the Atomic Energy Act of 1954, as Amended, with Respect to the Proposed Agreement for Cooperation Between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States Concerning Peaceful Uses of Nuclear Energy

INTRODUCTION

This Nuclear Proliferation Assessment Statement ("NPAS") relates to the proposed Agreement for Cooperation Between the American Institute in Taiwan ("AIT") and the Taipei Economic and Cultural Representative Office in the United States ("TECRO") Concerning Peaceful Uses of Nuclear Energy (the "Agreement"). The Agreement is being submitted to the President jointly by the Secretary of State and Secretary of Energy for his approval and authorization for signature.

Section 123 a. of the Atomic Energy Act, as amended (the "Atomic Energy Act" or "Act"), provides that an NPAS be submitted by the Secretary of State to the President on each new or amended agreement for cooperation concluded pursuant to that section. Pursuant to Section 123 a., the NPAS must analyze the consistency of the text of the proposed agreement with all the requirements of the Act, with specific attention to whether the proposed agreement is consistent with each of the criteria set forth in that subsection. The NPAS must also address the adequacy of the safeguards and other control mechanisms and the peaceful use assurances contained in the agreement for cooperation to ensure that any assistance furnished thereunder will not be used to further any military or nuclear explosive purpose.

With this statutory mandate in mind, this NPAS: (a) provides background information on the nonproliferation policies of the authorities on Taiwan and their civil nuclear program and aspirations (Part I); (b) describes the nature and scope of the cooperation contemplated in the proposed Agreement (Part II); (c) reviews the applicable substantive requirements of the Act and the Nuclear Non-Proliferation Act of 1978 ("NNPA") and details how they are met by the proposed Agreement (Part III); (d) describes the legal obligation of the authorities on Taiwan to accept full scope safeguards (Part IV); (e) describes the issue of third-party supply under the proposed Agreement (Part V); (f) describes and analyzes the advance, long-

term ("programmatic") AIT consent given in the proposed Agreement for TECRO to retransfer spent fuel subject to the proposed Agreement to France, or other countries or destinations as may be agreed upon in writing by the Parties, for storage and reprocessing, subject to specified conditions, including that any separated special fissionable material is not to be returned to the territory of the authorities represented by TECRO without further agreement by the United States (Part VI); and (f) sets forth the net assessment, conclusions, views and recommendations of the Department of State as contemplated by Section 123 a. of the Act (Part VII).

On January 1, 1979, the United States government established diplomatic relations with the People's Republic of China ("PRC") and terminated diplomatic relations with the Republic of China ("ROC") as the government of China. Several months later, the United States enacted the Taiwan Relations Act (P.L. 96-8, 22 U.S.C. 3301 et seq.) (TRA), Section 4(b)(1) of which provides that "[w]henever the laws of the United States refer or relate to foreign . . . nations . . . , such term[] shall include and such laws shall apply with respect to Taiwan." Meanwhile, Section 4(b)(2) of the TRA provides that "[w]henever authorized by or pursuant to the laws of the United States to conduct or carry out programs, transactions, or other relations with respect to foreign . . . nations . . . , the President or any agency of the United States Government is authorized to conduct and carry out, in accordance with [Section 6], such programs, transactions, and other relations with respect to Taiwan . . . ." These provisions form the basis for the application of Section 123 of the Atomic Energy Act, which refers to "cooperation with any nation," with respect to Taiwan.

Section 6(a)(1) of the TRA provides that any "programs, transactions, and other relations conducted or carried out by the President or any agency of the United States Government with respect to Taiwan shall ... be conducted and carried out by or through . . . [AIT] . . . ." Section 6(b) provides that "[w]henever the President or any agency of the United States Government is authorized or required by or pursuant to the laws of the United States to enter into, perform, enforce, or have in force an agreement or transaction relative to Taiwan, such agreement or transaction shall be entered into, performed, and enforced ... by or through [AIT]." Meanwhile, Section 10(a) of the TRA provides for the creation of a counterpart "instrumentality established by Taiwan" – TECRO.

Consequently, the Parties to the proposed Agreement are AIT and TECRO. As is customary with AIT-TECRO agreements, the operative provisions of the Agreement will be implemented by the Parties' designated representatives. AIT's

designated representatives are the U.S. Department of Commerce, the U.S. Department of Defense, the U.S. Department of Energy, the U.S. Department of State, and the U.S. Nuclear Regulatory Commission; TECRO's designated representatives are the Taiwan Atomic Energy Council and any successor agencies. Either Party to the Agreement may change its designated representatives or add designated representatives by informing the other Party in writing.

I. NUCLEAR PROGRAM AND NONPROLIFERATION POLICIES OF THE AUTHORITIES ON TAIWAN

Overview

The Role of Nuclear Power on Taiwan

The people on Taiwan are almost completely dependent on imports to meet their energy needs. According to the Atomic Energy Council ("AEC") of Taiwan, 99.4% of energy sources used on Taiwan relied on imports in 2011. The power generation mix on Taiwan is comprised of a variety of sources, with coal, natural gas, and nuclear being the three largest contributors. Figures from the Taiwan Power Company (Taipower; the island's primary utility conglomerate, which is owned by the central authorities) indicate that the installed nuclear generation capacity on Taiwan is 5,144 MW, and the six units of their three operating nuclear power plants generated a total of 42 terawatt-hours ("TWh") in 2011, accounting for 16.7% of the total energy supply on Taiwan.

According to a November 3, 2011, announcement, the policy of the authorities on Taiwan regarding nuclear energy is ultimately to eliminate its reliance on nuclear power, but in a gradual, stepwise, and conditional manner. This "nuclear-free homeland" goal is enshrined in Article 23 of the Basic Environment Act, which states that "the government shall establish plans to gradually achieve the goal of becoming a nuclear-free country." The timeline for such a reduction is not immediate and the authorities on Taiwan have stated that reliance on nuclear power will be reduced only insofar as the authorities on Taiwan can avoid power rationing, maintain reasonable power prices, and fulfill its stated commitments to reduce carbon emissions.

According to the energy policy of the authorities on Taiwan, as stated by President Ma Ying-jeou in a November 2011 press conference, the three operating nuclear power plants (at Chinshan, Kuosheng, and Maanshan) on Taiwan will not

have their licenses renewed and will be decommissioned at the end of their original design life, which would leave them operating until 2018-2025. While the energy policy calls for the construction of the Fourth Nuclear Power Plant at Lungmen to proceed, the authorities on Taiwan are currently considering whether or not to hold a referendum on whether it will operate. If the two units of the new Lungmen plant are commissioned and operate stably by 2016, the authorities plan to decommission their First Nuclear Power Plant (Chinshan) ahead of schedule. This would still leave the Second and Third Nuclear Power Plants (Kuosheng and Maanshan, respectively) in operation until 2021-2025. Assuming a 40-year operating life for the Lungmen plant, the people on Taiwan would utilize nuclear energy for several decades to come, meaning that elimination of nuclear power on Taiwan is unlikely to occur before 2050. (For further detail, see Power Reactors below.)

Nonproliferation Credentials

Nonproliferation Policy

The authorities on Taiwan have been a dependable democratic partner and supportive on issues of nuclear material safety and security for decades. Cross-strait relations appear to be warming, including nascent civil nuclear cooperation, which we see as reducing the risk of nuclear proliferation in the cross-straits area.

While concerns about the direction of the nuclear program of the authorities on Taiwan in the 1970s and 1980s have been widely reported in the press and literature, in recent years this program has been without blemish. In 1998, it was the first significant nuclear program to accept application of the measures of the Additional Protocol. The International Atomic Energy Agency's ("IAEA") Safeguards Statement has repeatedly stated that the IAEA Secretariat found no indication of the diversion of declared nuclear material from peaceful nuclear activities and no indication of undeclared nuclear material or activities. On this basis, the Secretariat has repeatedly concluded that all nuclear material on Taiwan remained in peaceful activities. The nuclear program of the authorities on Taiwan does not include either enrichment or reprocessing, nor have they indicated to the United States any desire to pursue these technologies.

The authorities on Taiwan over the last two decades established a generally reliable record on nonproliferation and on commitments to nonproliferation. Their political status prevents them from formally acceding to multilateral nonproliferation treaties or agreements. The ROC ratified the Nuclear Non-

Proliferation Treaty ("NPT") in 1970 and ratified the Biological Weapons Convention ("BWC") in 1972. The authorities on Taiwan have stated they will continue to abide by the obligations of the NPT (i.e. those of a non-nuclear-weapon state) and BWC, and the United States regards them as bound by both treaties. Due to their political status, the authorities on Taiwan cannot join the Chemical Weapons Convention, are not eligible to sign the International Convention for the Suppression of the Acts of Nuclear Terrorism, and are not eligible to participate in the Global Initiative against Nuclear Terrorism or the UN Register of Conventional Arms.

Their political status also prevents the authorities on Taiwan from joining the four multilateral export control regimes – Australia Group, Missile Technology Control regime (MTCR), Wassenaar Arrangement, and Nuclear Suppliers Group. Nonetheless, the authorities on Taiwan have voluntarily assumed commitments to adhere to key multilateral treaties and initiatives. The authorities on Taiwan follow IAEA standards and directives, work closely with U.S. civilian nuclear authorities, and have established relationships with mainland Chinese civilian nuclear authorities with respect to nuclear safety.

With the involvement of AIT and TECRO, the authorities on Taiwan participate in a number of U.S. initiatives. Under the State Department's Export Control and Related Border Security ("EXBS") program, the authorities on Taiwan receive training from the United States designed to enhance the export control system of the authorities on Taiwan by strengthening their enforcement capabilities and mechanisms and improving industry compliance. The EXBS program helps the authorities on Taiwan identify weaknesses in their export control system and provides expert support to close the gaps to help prevent proliferation. Additional examples of ongoing engagement include the participation by the authorities on Taiwan in both the U.S. Container Security Initiative ("CSI") – a high-risk cargo detection and interdiction program that was launched on Taiwan in 2004 – and the U.S. Megaports initiative, which began operation on Taiwan in 2006 to detect and interdict illicit radioactive and nuclear cargo.

Side Letter to the Proposed Agreement

In the course of the negotiation of the proposed Agreement, TECRO assured AIT of the following in a side letter:

- The authorities represented by TECRO are committed to pursuing a civil nuclear program in a manner consistent with the spirit and letter of the Treaty on the Non-Proliferation of Nuclear Weapons ("NPT").
- The authorities represented by TECRO are committed to cooperating only with responsible states in executing the civil nuclear programs of the authorities on Taiwan and to adhering to the highest standards of nonproliferation.
- The authorities represented by TECRO are abiding by and intend to continue to abide by the provisions of the NPT and the United Nations Security Council Resolutions addressing nuclear activities of concern.
- The authorities represented by TECRO therefore do not intend to engage in any nuclear cooperation, to the extent the following information is available to TECRO, with any states that are subject to UN Security Council Chapter VII measures related to proliferation-sensitive nuclear activities, weapons of mass destruction-related activities, or activities related to the development of nuclear weapon delivery systems, such as ballistic missile-related programs; with any persons or entities designated for sanctions by the UN; or with any states that are in material non-compliance with IAEA safeguards agreements or that have been identified by the IAEA Director General to the IAEA Board of Governors as having failed to provide the IAEA the level of cooperation required to resolve any outstanding questions in relation to the safeguards obligations of such state.
- The authorities represented by TECRO intend to engage in cooperation with third parties in the peaceful uses of nuclear energy consistent with the Guidelines of the Nuclear Suppliers Group (INFCIRC/254/Parts 1 and 2, as amended), and its associated understandings.

AIT recognized these assurances in a communication with TECRO as reflecting the strong non-proliferation policies of the authorities represented by TECRO.

Treaty on the Non-Proliferation of Nuclear Weapons

The ROC ratified the treaty in 1970, prior to the United Nations General Assembly's vote to transfer China's seat to the PRC in 1971. When the PRC subsequently ratified the treaty, it described the ROC ratification as "illegal." Nonetheless, the authorities on Taiwan have committed themselves to continue to abide by the requirements of the treaty, and the United States has declared that it still considers the authorities on Taiwan to be "bound by those requirements."

Safeguards Transfer Agreement

The Agreement Between the International Atomic Energy Agency, the Government of the Republic of China, and the Government of the United States of America for the Application of Safeguards was signed on December 6, 1971 (hereinafter "the Safeguards Transfer Agreement") (INFCIRC/158). The Safeguards Transfer Agreement was concluded under the Agreement between the Government of the United States of America and the Government of the Republic of China for Cooperation Concerning Civil Uses of Atomic Energy. The Safeguards Transfer Agreement applies safeguards to all material, equipment, and facilities on Taiwan supplied by the United States to Taiwan under the nuclear cooperation agreement then in effect or under any superseding agreement(s), and all special fissionable material produced therefrom and all nuclear material used therein. In the absence of any other vehicle for application of safeguards, no other country besides the United States has had the ability to engage in direct nuclear trade with the authorities and people on Taiwan and still meet its obligations to require safeguards on exports. However, the United States has long allowed such supply by others to Taiwan to be treated as though it came from the United States and added to the inventory of U.S. transfers to Taiwan, as long as there were agreed transfer conditions. Such conditions have been established for certain supply arrangements involving Australia, Canada, France, Germany, the Netherlands, and the United Kingdom. As the authorities on Taiwan have accepted that all nuclear materials, facilities, and equipment currently on Taiwan, regardless of origin, are treated as if they were supplied by the United States and safeguarded under the Safeguards Transfer Agreement, this provides for full-scope safeguards.

Application of Safeguards to the Taiwan Research Reactor Facility

In October 1969, the IAEA and the ROC concluded an agreement for the application of safeguards to the Taiwan Research Reactor facility ("IAEA-ROC Safeguards Agreement," INFCIRC/133). The ROC made this request to the Agency with regard to the reactor and associated research facilities the ROC intended to purchase from a supplier in Canada and to the fuel and heavy water for that facility. The IAEA agreed to apply its safeguards system to the nuclear facility and to any material listed in the Inventory, as defined in the IAEA-ROC Safeguards Agreement.

Additional Protocol

On March 25, 1998, the IAEA Deputy Director General for Safeguards Bruno Pellaud sent a letter to the Chairman of the Taiwan AEC proposing implementation of the measures of the Additional Protocol on Taiwan. By return letter of June 26, 1998, the Chairman of the Taiwan AEC accepted this proposal. As such, the nuclear power program on Taiwan was the first to which the measures of the Additional Protocol were applied.

Nuclear Fuel Cycle

The fuel cycle facilities on Taiwan are quite limited, encompassing six nuclear reactors, two reactors under construction, and spent fuel storage facilities. The primary governing authority for nuclear energy on Taiwan is the AEC.

Upstream Fuel Cycle

All nuclear fuel on Taiwan is imported. Australia and Canada are the principal suppliers of natural uranium and enrichment services are provided by the U.S. Enrichment Corporation (USEC), URENCO, and Areva. All the power and research reactor fuel used on Taiwan is manufactured in the United States.

Power Reactors

As noted above, Taipower has three nuclear power plants with two reactors operating at each site. The Chinshan and Kuosheng Plants each have two General Electric Boiling Water Reactors (BWRs), with start-up years ranging from 1978 to 1983. The Chinshan units are each capable of generating 636 MWe, while the Kuosheng units can each generate 985 MWe. The Maanshan power plant houses

two Westinghouse Pressurized Water Reactors (PWRs) capable of 951 MWe each, which started up in 1984-1985. Collectively, these plants are licensed to years in the range 2018-2025 (i.e., 40 years from start-up).

Construction of a fourth nuclear power plant at Lungmen is ongoing, with 97% completion for construction and 41% completion for pre-operations testing. Two 1350 MWe Advanced Boiling Water Reactors ("ABWRs") designed and supplied by General Electric are planned for the site, with the overall design done by a group comprised of General Electric Nuclear Energy, Stone & Webster, and Mitsubishi Heavy Industries, with Taipower maintaining control and oversight of design engineering. Construction has undergone considerable delays, including a halt in construction ordered after the Democratic Progressive Party won the presidential election in 2000. The Fukushima nuclear accident led to calls for enhanced safety measures. The AEC conducted an evaluation of the safety of all existing reactors and the results showed that continued operation of nuclear power plants poses no imminent risk to the public health and safety, while there are some areas that need improvement. The AEC ordered Taipower to put in place more countermeasures to further enhance the capability to cope with extreme natural disasters. President Ma's energy policy statement from November 2011 noted that construction will move forward, but "even more comprehensive and strict trial operations" will be required before commissioning of the plant.

Although the authorities on Taiwan are trying to reassure the public that nuclear energy is safe, opposition to nuclear energy remains high on Taiwan following the Fukushima accident in Japan. This opposition is reinforced by the fact that the fourth nuclear power plant's construction process has taken over 20 years, has involved multiple contractors, and had been suspended at one point. In addition, some oppose nuclear energy because the authorities on Taiwan have not identified a long-term storage plan for nuclear waste. During an April 2013 visit from a U.S. Nuclear Regulatory Commission ("NRC") commissioner to Taipei, members of the Legislative Yuan noted that opposition to nuclear power on Taiwan had never been higher and described the future of the fourth nuclear power plant as "the hottest issue in Taiwan now." In August 2013, Premier Jiang Yi-huah reiterated the support of the authorities on Taiwan for completion of the fourth reactor.

Research Reactors and Institutes

The authorities on Taiwan have only one operational research reactor at the present time, a TRIGA reactor called THOR. The THOR facility is located at National Tsing Hua University (NTHU) and is used for neutron radiography, boron-neutron capture therapy, neutron diffraction, isotope production, and neutron activation analysis. It went critical in 1961. As noted above, IAEA safeguards are applied to the research reactor under the Safeguards Transfer Agreement.

The Institute of Nuclear Energy Research ("INER"), under the administration of the AEC, is the sole nuclear research institute of the authorities on Taiwan. Its mission is to promote peaceful applications of nuclear science. It was established in 1968 and engages in research related to the safe operation of nuclear power plants, radiation safety, radioactive waste treatment and disposition, plasma technologies, and nuclear medicine, among other related areas. It has halted all but one area of its previous work on the nuclear fuel cycle, which had included uranium recovery, conversion, fuel fabrication, operation of three research reactors, a small scale reprocessing facility, a plutonium handling facility and a post irradiation examination ("PIE") facility. Only the PIE facility is still operational and being used for examination of failed power reactor fuel, support to Organisation for Economic Co-operation and Development ("OECD") experiments on high burn-up power reactor fuel, and stabilization of spent research reactor fuel.

Downstream Fuel Cycle

The AEC describes the overall government management strategy as "storage in spent fuel pools for the near term, onsite dry storage for the mid-term, and final deep geological disposal for the long term." However, long term efforts by the authorities on Taiwan have suffered a number of setbacks resulting in the need to pursue other measures for the nearer term.

A "Preliminary Technical Feasibility Report for Final Disposal of Spent Nuclear Fuel" was submitted to the AEC for review in September 2009 and was approved by the AEC in July 2012. However, further work on the site of an underground research laboratory in eastern Taiwan was halted due to protests by the local aboriginal people. A substitute plan was proposed and submitted to AEC for review in late September 2012, which envisioned using abandoned tunnels and on-going tunnel construction projects for conducting geological research. A "Technical Feasibility Report for Final Disposal of Spent Nuclear Fuel" is

scheduled to be submitted to AEC for review in 2017. Operation of a final repository is now projected for 2055.

In the interim, the authorities on Taiwan are pursuing "at reactor storage." The Maanshan plant has sufficient wet storage to handle the spent fuel for the lifetime of the plant, as will the Lungmen plant, assuming it operates, but both the Chinshan and Kuosheng plants have limited pool storage, even after efforts to enhance the storage capacity (the plants lose full core discharge capability in 2014 and 2016 respectively). After weathering considerable opposition from both the local authorities and the central authorities, Taipower is constructing dry storage at Chinshan. The facility is being built by INER using concrete storage casks ("INER-HPS") based on U.S.-origin technology. According to information provided by Taipower in November 2012, operation was scheduled to begin in 2013, increasing the storage capacity by over 20%. Taipower is also constructing dry cask storage at the Kuosheng plant, also based on U.S.-origin technology for the casks, and expects to receive an operational license for the facility by the end of 2015, increasing the storage capacity by over 25%.

In view of its setbacks in constructing dry storage at Chinshan and Kuosheng, Taipower has been considering sending spent fuel to France for reprocessing since at least 1998. Such arrangements would not provide for return of the recovered plutonium but would require that the waste, including high-level waste, be returned to Taiwan for final disposal. Taipower recognizes this would be a costly endeavor but is considering it as an option for disposing of spent fuel at Chinshan and Kuosheng if necessary to leave sufficient space in the spent fuel pool for full core discharge. The authorities remain keen to have the option of transferring fuel for such reprocessing, which is the rationale for the AIT advance consent provisions in the Agreed Minute of the proposed Agreement.

Waste management and disposal on Taiwan is funded by a tax on electricity of 0.17 new Taiwan dollar (NTD) per kilowatt hour. According to March 2013 press reports, the fund currently holds about 200 billion NTD (approximately $6.7 billion at current exchange rates).

At present, Taipower is storing the low level radioactive waste (LLW) produced by operation of its nuclear power plants on site. The AEC describes these storage facilities as "modern air-conditioned, automated and well-shielded storage facilities" that accommodate tens of thousands of LLW drums at each nuclear power plant site. Taipower has engaged in a concerted effort to reduce the volume of this waste in order to ensure that these sites have adequate capacity, and

it has reported that it generated only 234 barrels of LLW in 2010 (the lowest annual figure in history).

From 1982 to 1996, off-site interim storage of LLW was provided by the Lan-Yu (Orchid Island) Storage Site. However, adverse environmental conditions led to deterioration of waste drums. The AEC subsequently charged Taipower with implementing a waste storage modification program for corroded drums, which included use of drums with improved corrosion resistance and drum examination and repacking. While the waste stored in corroded drums has been repackaged for storage, continued use of the site is opposed by the local aboriginal people, and the AEC has been promising to remove the waste since protests in 2002. New LLW storage sites are under consideration. Although Taipower announced two candidate sites in August 2012, the local jurisdictions both declined to host a site. Taipower has proposed a procedure to select a new site with local participation, but the status of the effort is unknown.

The authorities on Taiwan have also sought to ship LLW overseas for disposal. The most highly publicized effort was in 1997 when Taipower signed a contract with the Democratic People's Republic of Korea (North Korea). However, protests in the Republic of Korea (South Korea) put an end to that effort. Subsequently, the AEC chairman promised to select a disposal site on Taiwan.

Small producers of LLW, such as medical, academic, and industrial sites, have their waste collected, treated, and stored by INER. INER is also storing waste from decommissioning a number of on-site facilities.

Nuclear Regulations and Statutes

The nuclear activities of the authorities on Taiwan are conducted under the authority granted by its Atomic Energy Act (Taiwan AEA) of December 1971. Detailed regulations are established under the authority of the Taiwan AEA. The Taiwan AEA establishes the authority to regulate:

1) The safety protection for the transportation of nuclear material, including safeguards (Article 24-28);

2) Nuclear material storage areas, which must be divided by their characteristics into three areas: the control area, material area, and vital area (Article 29);

3) Protection of nuclear materials in use and storage (Articles 30-32), including the following measures:

    - Access and admission control system (employees, vehicles, and packages)
    - Escorting and controlling visitors
    - Key control procedures
    - Alarm systems to detection instruction
    - Security guard forces
    - Management of nuclear material accounts;

4) Nuclear emergency response exercises at nuclear power plants, which must be conducted every four years (Article 11).

Violations of regulations result in the issuance of a Violation Notice of varying levels, depending on the severity of the violation. These result in administrative, not criminal, penalties.

The authorities on Taiwan instituted a number of laws relating to nuclear facilities and material, including the *Nuclear Reactor Facilities Regulation Act* (January 2003), *Taiwan Nuclear Materials and Radioactive Waste Management Act* (December 2002), and *Ionizing Radiation Protection Act* (February 2003). The requirements for measures against unauthorized removal and sabotage of nuclear material during transport are as follows:

- Must comply with the regulations of the authorities on Taiwan:
    - Nuclear Materials and Radioactive Waste Management Act
    - Regulation for the Nuclear Materials Transport Safety Management
    - Regulation for the Nuclear Fuels Operational Safety Management
- Must comply with IAEA INFCIRC/225

Physical protection of nuclear materials

The AEC is responsible for developing the rules and regulations for execution of the physical protection system of nuclear materials and nuclear facilities, as noted in the Taiwan AEA. The AEC has advised U.S. experts that according to the current regulations, the Department of Nuclear Technology is responsible for the regulation and supervision of nuclear security and physical protection. However, since 1992, the Fuel Cycle and Materials Administration ("FCMA") has been gradually assuming some of the responsibilities for

supervision and inspection of facilities not directly related to power generation, such as NTHU and INER. Inspections are conducted of INER on a semi-annual basis and NTHU on an annual basis. The Maanshan and Lungmen plants are inspected on a quarterly, semi-annual, and annual basis for different physical protection topical areas. Surprise inspections are also conducted during the year, and the periodic on-site security force response exercises are also inspected annually. An anti-terrorism exercise involving off-site security forces is conducted every four years. An AEC inspector is sent to accompany each nuclear material transport from the pier at the receiving port on Taiwan to the destination facility.

Reorganization of administration

The authorities on Taiwan are currently in the process of carrying out a reorganization across various ministries that includes moving the nuclear regulator, the AEC, from a second tier agency to a third tier agency and changing its name to the Nuclear Safety Commission ("NSC"). Unlike the original reorganization plan, which was to place NSC under the Ministry of Science and Technology ("MOST"), the reorganization currently planned retains NSC's independent status, a status for which AIT had pressed. While the structure of the NSC has not been finalized, the current draft organizational plan includes an NSC managerial level similar to the U.S. NRC. It will be composed of a chairman, a vice chairman, and several commissioners, all of whom will be nominated by the premier. In parallel, the bulk of AEC's research and technical support arm, INER, which consists of about one thousand people, is to be moved under the Ministry of Economic and Energy Affairs (MOEEA) and to be renamed the Institute of Energy Research (IER). MOEEA is also responsible for oversight of Taipower. The technical support INER currently supplies to the regulatory activities of the AEC will be supplied by a new, much smaller organization built around those at INER currently providing that support. The new organization will be named the Research Center for Nuclear Safety Regulations (still to be confirmed) and will consist of around sixty-six people. Concern has been expressed that this new organization may lack the experience, resources, and competence to provide strong technical advice to AEC and AIT has indicated to the authorities on Taiwan the need for its regulator to have strong technical support.

II. NATURE AND SCOPE OF THE COOPERATION CONTEMPLATED BY THE PROPOSED AGREEMENT

The proposed Agreement would accomplish, *inter alia*, the following: 1) establish the conditions for U.S. nuclear trade with the authorities on Taiwan; 2) articulate a legal requirement for full scope safeguards on Taiwan and the mechanism for implementing it; 3) establish the basis for countries other than the United States to use the Agreement as a mechanism for peaceful nuclear cooperation; and 4) demonstrate the leadership of the authorities on Taiwan in the nonproliferation arena.

Article 2 of the proposed Agreement describes in general terms the kinds of cooperative activities envisaged. These include, *inter alia*:

- Transfers of information, material, equipment, and components under the Agreement either directly between the Parties or through their designated representatives or through other authorized persons.

- Development of requirements for grid-appropriate power reactors and fuel service arrangements for the authorities represented by TECRO.

- Promotion of the establishment of a reliable source of nuclear fuel for future civil nuclear reactors.

- Development of the use of civil nuclear energy in a manner that supports global efforts to prevent nuclear proliferation.

- Civil nuclear energy training, human resource and infrastructure development, participation in international and regional research, and appropriate application of civil nuclear energy and related energy technology, consistent with high standards of safety, security and nonproliferation.

- Application of radioisotopes and radiation in industry, agriculture, medicine, and the environment.

- Radiation protection and management of radioactive waste and spent fuel.

- Promotion of participation in international conferences and activities related to safety, security, and safeguards.

- Promotion of participation in cooperation relevant to compensation for nuclear damage.

Article 3.1 of the proposed Agreement further specifies the types of information concerning the peaceful uses of nuclear energy that may be transferred. Fields that may be covered include the following:

- Development, design, construction, operation, maintenance, and use of reactors; reactor experiments; and decommissioning.

- The use of material in physical and biological research, medicine, agriculture, and industry.

- Fuel cycle studies of ways to meet future world-wide civil nuclear needs, including multilateral approaches to guaranteeing nuclear-fuel supply and appropriate techniques for management and treatment of nuclear wastes.

- Safeguards and physical protection of material, equipment, and components.

- Health, safety, and environmental considerations related to the foregoing.

- Assessing the role that nuclear power may play in energy plans for the territories of the authorities represented by the Parties.

The Agreement states that Restricted Data, sensitive nuclear technology, sensitive nuclear facilities, or major critical components of such facilities shall not be transferred under the Agreement (Article 3.3 and Article 4.1).

Transfers of special fissionable material to TECRO under the Agreement will be low enriched uranium, except (a) small quantities for use as samples, standards, detectors, targets, or other agreed purposes, or (b) if the Parties agree, special fissionable material contained in spent fuel or waste being transferred to support spent fuel management and disposition (Article 4.1 and 4.4). Any such

transfers may not be in excess of the quantity that the Parties agree is necessary for the activities envisaged (Article 4.3).

The proposed Agreement will have an indefinite term from the date of its entry into force unless terminated by either Party on one year's written notice to the other Party (Article 15.3). In the event of termination of the Agreement, key nonproliferation conditions and controls provided for in the Agreement will continue in effect as long as any material, equipment, or components subject to the Agreement remain in the territory of the authorities represented by either Party or under the jurisdiction or control of those authorities anywhere, or unless the Parties agree that such items are no longer usable for any nuclear activity relevant from the point of view of safeguards (Article 15.4).

III. SUBSTANTIVE CONDITIONS

Section 123 of the Act, as amended by the NNPA, sets forth certain substantive requirements for agreements for cooperation. Sections 402 and 407 of the NNPA set forth supplementary requirements. The provisions contained in the proposed Agreement satisfy these legal requirements as follows:

(1) Application of Safeguards: Section 123 a.(1) of the Act requires a guaranty from the cooperating party that safeguards in perpetuity will be maintained with respect to all nuclear materials and equipment transferred pursuant to an agreement for cooperation and with respect to all special nuclear material used in or produced through the use of such transferred nuclear materials and equipment, so long as the material or equipment remains under the jurisdiction or control of the cooperating party, irrespective of the duration of the other provisions of the agreement or whether the agreement is terminated or suspended for any reason.

This requirement is satisfied by Articles 10 and 15 of the proposed Agreement. IAEA safeguards on Taiwan are applied pursuant to the Safeguards Transfer Agreement. Section 1(c) of the Safeguards Transfer Agreement defines "Agreement for Cooperation" as "the Agreement Between the Government of the Republic of China and the Government of the United States of America for Cooperation on the Civil Uses of Atomic Energy signed on 18 July 1955 as amended, **or a new superseding agreement for cooperation, as amended.**" (Emphasis added.) Article XIV of the 1972 Agreement for Cooperation states, "The Agreement for Cooperation Between the Government of the United States of

America and the Government of the Republic of China Concerning the Civil Uses of Atomic Energy, signed on July 18, 1955, as amended, is superseded by this Agreement on the dates this Agreement enters into force." Therefore, the 1972 Agreement for Cooperation is an agreement for cooperation within the scope of Section 1(c) of the Safeguards Transfer Agreement.

Pursuant to Section 33 of the Safeguards Transfer Agreement, the Safeguards Transfer Agreement "shall remain in force during the term of the Agreement for Cooperation, as extended or amended from time to time..." As long as the 1972 Agreement for Cooperation or a new superseding agreement for cooperation is in force, the Safeguards Transfer Agreement will remain in force. Under Article 15.2 of the proposed Agreement, "[t]his Agreement shall be deemed by the *Parties* as a new superseding agreement for cooperation within the meaning of Section 1(c) of the Safeguards Transfer Agreement." Therefore, the IAEA safeguards will be maintained pursuant to the proposed Agreement since the IAEA will apply safeguards in accordance with the Safeguards Transfer Agreement to materials, equipment, and facilities listed in inventories as defined and described in the Safeguards Transfer Agreement.

Article 10.2 stipulates that source or special nuclear material (referred to in the proposed Agreement as "special fissionable material"), moderator material, and equipment transferred to the territory, jurisdiction, or control of the authorities represented by TECRO pursuant to the Agreement - and any source material or special fissionable material used in or produced through the use of any material (which under the Agreement includes source material, special fissionable material, byproduct material, radioisotopes other than byproduct material, moderator material, or any other such substance so designated by agreement of the Parties), equipment, or components transferred -- shall be subject to safeguards in accordance with the terms of the Safeguards Transfer Agreement and to the measures provided for in the Model Additional Protocol (published in INFCIRC/540). (Note that while the authorities on Taiwan cannot adopt their own Additional Protocol, the Article 10.2 language requires the measures provided for in the Model Additional Protocol to be applied.) Article 10.4 provides for "back-up" safeguards in the event the IAEA safeguards provided in accordance with the Safeguards Transfer Agreement and the measures provided for in the Model Additional Protocol are not being implemented. Article 10 is one of the articles of the Agreement that, pursuant to Article 15, continues in effect so long as any material, equipment, or component subject thereto remains in the territory of the authorities represented by AIT or the authorities represented by TECRO, or under the jurisdiction or control of the authorities represented by either Party to the

Agreement anywhere, or until such time as the Parties agree that item is no longer usable for any nuclear activity relevant from the point of view of safeguards.

(2) Full-Scope Safeguards: The requirement for full-scope safeguards as a condition of cooperation mandated by section 123 a.(2) is met by Article 10.1 of the proposed Agreement.

(3) Peaceful Use: The requirement of section 123 a.(3) of the Act for a guaranty against explosive or military uses of nuclear materials and equipment transferred and special nuclear material produced through the use of such items is met by Article 9 of the proposed Agreement. It is not necessary to include a peaceful uses guaranty with respect to sensitive nuclear technology transferred under the Agreement or special nuclear material produced through the use of sensitive nuclear technology transferred, as would otherwise be required by section 123 a.(3), because Article 3.3 of the proposed Agreement provides that sensitive nuclear technology shall not be transferred under the Agreement.

(4) Right of Return: The requirement in section 123 a.(4) of the Act that, in the event of a nuclear detonation by a non-nuclear weapon state cooperating party or termination or abrogation of an IAEA safeguards agreement by such a party, the United States has a right to the return of any nuclear material and equipment transferred pursuant to an agreement for cooperation and any special nuclear material produced through the use of such transferred items, is met by Article 11 of the proposed Agreement. This right is triggered if TECRO, the authorities represented by TECRO, or any person authorized by or who acts with the knowledge of the authorities represented by TECRO, and who is either within the territory of the authorities represented by TECRO or under their jurisdiction or control, should detonate a nuclear explosive device or if TECRO or its designated representatives materially violates the provisions of Articles 5, 6, 7, 8, 9 or 10 of the proposed Agreement, or the authorities represented by TECRO take actions that would constitute a material violation of any of those provisions if taken by TECRO.

Article 11.4 of the proposed Agreement requires that a Party, in determining whether to exercise its rights under Article 11.1 based on a "material violation," shall consider whether the facts giving rise to the right to take such action in accordance with Article 11.1 were caused deliberately. In the event that a Party finds such material violation not to be deliberate, and to the extent that it judges that such material violation can be rectified, that Party is obligated to endeavor, subject to the laws and regulations of the authorities represented by that Party, to

afford the other Party an opportunity to cure the violation within a reasonable period. This provision in Article 11.4 does not, however, make the exercise of the right of return by the United States under Article 11 contingent upon any substantive conditions nor require the consent of the authorities represented by TECRO.

(5) Retransfer Consent: The requirement of section 123 a.(5) of the Act for a guaranty by a cooperating party that "any material or any Restricted Data . . . and any production or utilization facility transferred pursuant to the agreement . . . or any special nuclear material produced through the use of such facility or . . . material" will not be transferred to unauthorized persons or beyond the jurisdiction or control of the cooperating party without prior U.S. consent, is met by Article 5.2 of the proposed Agreement. A retransfer consent right over Restricted Data (RD) is not provided because RD transfers are prohibited under Article 3.3 of the proposed Agreement.

As noted above, Section 3 of the Agreed Minute ("Retransfers") to the proposed Agreement provides advance, long-term ("programmatic") approval of the authorities represented by AIT for retransfers by the authorities represented by TECRO of irradiated nuclear material subject to Article 5 and Article 6 of the Agreement to France or other countries or destinations as may be agreed upon in writing by the Parties for storage and reprocessing. All such transfers must be in compliance with the policies, laws, and regulations of the recipient country or destination, including any requirement that indicates a provisional period for the receipt and treatment of such irradiated source material or special fissionable material or that the waste produced as a result of the reprocessing be returned to the territory of the authorities represented by TECRO. The transfers are also subject to certain listed conditions. This advance approval is discussed further below in this memorandum in "Conformity with Section 131 of the Act."

(6) Physical Security: The requirement of section 123 a.(6) of the Act for a guaranty that adequate physical security will be maintained with respect to any nuclear material transferred pursuant to an agreement of cooperation and any special nuclear material (in this Agreement referred to as "special fissionable material") used in or produced through the use of any material, production facility, or utilization facility transferred pursuant to such agreement is met by Article 8 of the proposed Agreement.

(7) Enrichment/Reprocessing/Alteration Consent Right: The requirement of section 123 a.(7) of the Act for a guaranty that "no material transferred pursuant to the agreement for cooperation and no material used in or produced through the use of any material, production facility, or utilization facility transferred pursuant to the agreement . . . will be reprocessed, enriched or (in the case of plutonium, uranium 233, or uranium enriched to greater than twenty per cent in the isotope 235, or other nuclear materials which have been irradiated) otherwise altered in form or content without the prior approval of the United States," is met by Article 6 of the proposed Agreement. That Article provides that material transferred pursuant to the Agreement, and material used in or produced through the use of material or equipment transferred, shall not be reprocessed unless the Parties agree, and further specifies that plutonium, uranium 233, high enriched uranium, and irradiated source material or special fissionable material transferred pursuant to the Agreement or used in or produced through the use of material or equipment so transferred shall not be otherwise altered in form or content, except by irradiation or further irradiation, unless the Parties agree. The Agreement also specifies that uranium transferred pursuant to the Agreement or used in any equipment so transferred shall not be enriched after transfer unless the Parties agree. Further, Article 7 of the Agreement provides that TECRO, the authorities represented by TECRO, or any person authorized by or who acts with the knowledge of the authorities represented by TECRO within the territory of the authorities represented by TECRO, will not possess sensitive nuclear facilities or otherwise engage in activities related to the enrichment or reprocessing of material, or to the alteration in form or content (except by irradiation or further irradiation or, if agreed by the Parties, post-irradiation examination or spent fuel stabilization) of plutonium, uranium 233, high enriched uranium, or irradiated source material or special fissionable material.

Article 6 of the proposed Agreement also satisfies section 402(a) of the NNPA, which states that, except as specifically provided in any agreement for cooperation, no source or special nuclear material exported from the United States after the date of the NNPA may be enriched after export without the prior approval of the United States for such enrichment.

(8) Storage Consent Right: The requirement of section 123 a.(8) of the Act for a guaranty of a right of prior U.S. approval over facilities for the storage of specified nuclear materials is met by Article 5.1 of the proposed Agreement.

(9) Sensitive Nuclear Technology: The requirement of section 123 a.(9) of the Act pertains to situations that may result when sensitive nuclear technology is transferred pursuant to a section 123 agreement for cooperation. Article 3.3 of the proposed Agreement provides that sensitive nuclear technology will not be transferred under the Agreement, and Article 4.1 provides that sensitive nuclear facilities and major critical components thereof will not be transferred under the Agreement. Accordingly, the requirement in section 123 a.(9) is not relevant to the proposed Agreement, and the requirement in section 402(b) of the NNPA precluding the transfer of major critical components of facilities for uranium enrichment, nuclear fuel reprocessing, or heavy water production unless an agreement for cooperation "specifically designates such components as items to be exported pursuant to [such] agreement" is also satisfied.

Environmental: Article 12.3 of the proposed Agreement requires the Parties to consult, with regard to activities under the Agreement, to identify the international environmental implications arising from such activities and to cooperate in protecting the international environment from radioactive, chemical, or thermal contamination arising from peaceful nuclear activities under the Agreement, thereby satisfying the requirements of section 407 of the NNPA.

Conformity with Section 131 of the Act

Section 131 of the Act establishes procedural requirements for the conclusion of "subsequent arrangements" entered into pursuant to agreements for cooperation. Subsequent arrangements implement the consent rights obtained pursuant to the requirements of section 123. Section 3 ("Retransfers") of the Agreed Minute to the proposed Agreement sets forth advance approval by AIT for certain activities of TECRO which, if not approved in the context of an agreement for cooperation, could be permitted only as "subsequent arrangements" following compliance with the provisions of section 131 of the Act. AIT provides such approval for TECRO to retransfer for storage and reprocessing irradiated nuclear material subject to Article 5 and Article 6 of the proposed Agreement to France or other countries or destinations as may be agreed upon in writing by the Parties. All such transfers must be in compliance with the policies, laws, and regulations of the recipient country or destination and are subject to specified conditions. These conditions ensure that AIT will be notified at least thirty days in advance of a proposed transfer to allow the authorities represented by AIT sufficient time to obtain confirmation from the receiving country or destination, or, in the case of a proposed transfer to a country that is a member of the European Atomic Energy Community ("EURATOM"), that the material will

be held within EURATOM or the receiving country or destination subject to the terms and conditions of an applicable agreement for cooperation to which the authorities represented by AIT are party and which authorizes nuclear exports from the jurisdiction of the authorities represented by AIT to that country or destination, as appropriate, and therefore be subject to the conditions required by the Act. TECRO may not proceed with the proposed transfer until AIT notifies TECRO of the receipt of such confirmation. AIT retains the right to terminate this approval at any time, if it considers that one or more of the aforementioned conditions is not satisfied or it considers that exceptional circumstances of concern from a non-proliferation or security standpoint so require.

The mechanism in the proposed Agreement itself of providing advance long-term consent for retransfer for reprocessing or storage has been used in U.S. nuclear cooperation agreements with Norway and the United Arab Emirates (as well as Finland and Sweden, which are now part of EURATOM). The Executive Branch has taken the position that this approach is legally sustainable, and Congress, after careful and detailed consideration of both the principles of including advance long-term consents in cooperation agreements and their implementation in specific agreements, has not blocked their use in any of these agreements.

Advance Approval of Retransfers for Storage or Reprocessing

Sections 123 and 127 of the Act require the United States have certain approval rights, including reprocessing and retransfer approval rights. However, no provision of the Act or the NNPA precludes the United States from giving such approvals in advance when all the requirements of the Act can be properly met. In fact, the Act clearly indicates that U.S. consent rights can be granted in advance. In that regard, Section 131 a.(3) of the Act provides that:

> The United States will give timely consideration to all requests for prior approval, when required by this Act, for the reprocessing of material proposed to be exported, previously exported and subject to the applicable agreement for cooperation, or special nuclear material produced through the use of such material or a production or utilization facility transferred pursuant to such agreement for cooperation, or to the altering of irradiated fuel elements containing such material, and additionally, to the maximum extent feasible, will attempt to expedite such consideration when the terms and conditions for such actions are set forth in such agreement for cooperation...

The reference to "material proposed to be exported" makes clear that the consent for reprocessing or alteration of irradiated fuel may be granted prior to the export of any nuclear material. In the course of normal reactor operations, the fuel to be exported and then used in a reactor would not be reprocessed for five or more years. Therefore the "prior approval" that this section of the Act would allow the United States to give would be far in advance of the actual time that the material in question would be reprocessed or altered in form or content.

Section 131 a.(3) of the Act provides that expedited consideration will be given to requests for consent for reprocessing "when the terms and conditions for such actions are set forth in such agreement for cooperation." This provision authorizes AIT to specify in the proposed Agreement with TECRO the conditions that would have to be met for a subsequent approval of a request for retransfer for reprocessing or other fuel cycle activities. There is no substantive difference between that and the proposed Agreement, which makes the approval granted by the Agreed Minute of the proposed Agreement contingent on continued compliance with the conditions specified in the proposed Agreement, which are described above in Part III.

The Agreed Minute provides *inter alia* that the agreement regarding retransfers "may be suspended or withdrawn in whole or in part by either Party if that Party considers that one or more of the [specified] conditions is not satisfied, or if it considers that exceptional circumstances of concern from a non-proliferation or security standpoint so require. To the extent that time and circumstances permit, the Parties shall consult prior to any such suspension or withdrawal. Such exceptional circumstances include, but are not limited to, a determination by either Party that the approval cannot be continued without a significant increase of the risk of proliferation or without jeopardizing the security of the territory of the authorities it represents."

Further, advance consent in an agreement for cooperation means that under the approval provisions of Section 123 b. of the Act, the President approves and authorizes the proposed Agreement and makes a determination in writing that the performance of the proposed Agreement will promote, and will not constitute an unreasonable risk to, the common defense and security. In contrast, the subsequent arrangement procedures in Section 131 of the Act require the determination of the Secretary of Energy only that the arrangement will not be inimical to the common defense and security.

Finally, the requirements under Section 131 of the Act for public notice and Congressional scrutiny for a subsequent arrangement providing approval of the retransfer of all U.S.-obligated special nuclear material if such approval had been granted as a subsequent arrangement rather than, as here, in the proposed Agreement itself, will effectively be satisfied in the present case of TECRO by implementation of the procedures set forth in Section 123 of the Act for Congressional review of proposed new agreements for cooperation. This is because Section 123 of the Act permits Congress to review a new agreement for cooperation for up to ninety days of continuous session, while section 131 provides that subsequent arrangements involving retransfer of special nuclear material for reprocessing resulting from such reprocessing must lie before Congress for only fifteen days of continuous session (in addition to the section 131 requirement applicable to all subsequent arrangements of publication in the *Federal Register* for at least 15 days before taking effect).

Thus, although the Act does not require that the advance consent provided for in the proposed Agreement meet the applicable standard in Section 131, the advance consent granted by the United States in the proposed Agreement has been analyzed in regard to all the relevant criteria of Section 131 as well as Section 123 of the Act, and it has been judged that such advance consent will not be inimical to the common defense and security and will promote and will not constitute an unreasonable risk to the common defense and security.

In sum, the proposed Agreement satisfies all the substantive requirements specified for agreements for cooperation by the Act and the NNPA.

IV. FULL SCOPE SAFEGUARDS

While the ROC ratified the NPT in 1970, it was unable to conclude a full scope safeguards agreement with the IAEA before its political status changed. While the IAEA was able to continue to implement the two existing safeguards agreements mentioned above, i.e., the IAEA-ROC Safeguards Agreement concluded in October 1969 and the Safeguards Transfer Agreement concluded in December 1971, the IAEA-ROC Safeguards Agreement applies only to the Taiwan Research Reactor and associated material and equipment, and the Safeguards Transfer Agreement applies only to material, facilities, and equipment supplied by the United States to the authorities on Taiwan under the peaceful nuclear cooperation agreement in effect at that time or under any superseding agreement(s) and all special fissionable material produced therefrom and all nuclear material

used therein. As a consequence, the authorities on Taiwan have no apparent legal obligation to accept full scope safeguards (safeguards on all nuclear material in all peaceful nuclear activities) apart from their view of their own obligations under Article III of the NPT. However, the U.S. Government has advised other suppliers, including *inter alia*, Australia, Canada, France, Germany, Japan, the Netherlands, Sweden, and the United Kingdom, that the IAEA applies safeguards under the Safeguards Transfer Agreement to all the nuclear facilities on Taiwan, creating *de facto* full scope safeguards on Taiwan.

As noted above, one of the objectives of concluding this AIT-TECRO agreement was to make full scope safeguards a legal obligation of the authorities on Taiwan. Article 10, paragraphs 1 and 2 of the proposed Agreement state:

> 1. Cooperation under this Agreement shall require the application of IAEA safeguards with respect to all nuclear activities within the territory of the authorities represented by TECRO, under the jurisdiction of those authorities or carried out under the control of those authorities anywhere. Implementation of the Safeguards Transfer Agreement with respect to all such nuclear activities shall be considered to fulfill this requirement.
>
> 2. *Source material*, *special fissionable material*, *moderator material*, and *equipment* transferred to the territory, jurisdiction or control of the authorities represented by TECRO pursuant to this Agreement and any *source material* or *special fissionable material* used in or produced through the use of *material*, *equipment* or *components* so transferred shall be subject to safeguards in accordance with the terms of the Safeguards Transfer Agreement and to the measures provided for in the Model Additional Protocol (published in INFCIRC/540).

Furthermore, the Agreed Minute, Section 1 establishes that:

> a. At the time of entry into force of the Agreement, all *source material, special fissionable material,* minor actinides separated from *special fissionable material, moderator material,* tritium and *equipment* in all nuclear activities in the territory or under the jurisdiction or control of the authorities represented by TECRO shall be subject to the Agreement as though such *material* or *equipment* had been transferred under the Agreement to the territory of the authorities represented by TECRO or to their jurisdiction or control.

b. After entry into force of the Agreement, no *source material*, *special fissionable material*, minor actinides separated from *special fissionable material*, *moderator material*, tritium, *equipment*, or *components* for use in nuclear activities shall be produced, developed, or manufactured in the territory of, permitted to enter the territory of, or be transferred to the jurisdiction or control of, the authorities represented by TECRO, without the prior written consent of AIT. AIT consent is hereby granted for the production of *source material* or *special fissionable material* from *material, equipment,* or *components* for which the prior written consent of AIT required by this paragraph has already been granted.

c. After entry into force of the Agreement, all *source material, special fissionable material,* minor actinides separated from *special fissionable material, moderator material,* tritium and *equipment* (regardless of origin) produced, developed, or manufactured in the territory of, or that are transferred for use in nuclear activities to the territory, jurisdiction or control of the authorities represented by TECRO shall, upon the consent of AIT referred to in paragraph b. above, be subject to the Agreement and included in the inventories required to be established pursuant to Article 10, paragraphs 7 and 8.

As a consequence of these provisions, all nuclear material in all nuclear activities on Taiwan at the time of conclusion of the proposed Agreement and all nuclear material subsequently transferred to Taiwan are required by the terms of the proposed Agreement to be safeguarded.

V. THIRD-PARTY SUPPLY UNDER THE PROPOSED AGREEMENT

Over thirty years ago, the United States government determined it would not use nonproliferation conditions to create a monopoly supply situation regarding the export of nuclear material, equipment, and components to Taiwan. As noted above, in the absence of any other vehicle for application of safeguards, no other country besides the United States had the ability to engage in direct nuclear trade with the authorities on Taiwan and still meet its obligations to require safeguards on exports. Consequently, the United States has long allowed such supply by others to Taiwan to be treated as though it came from the United States and added to the inventory of U.S. transfers to Taiwan. However, by the same token, the

United States also determined that it did not want other suppliers to use our non-proliferation vehicle to undercut U.S. suppliers through unfair trade practices or to burden the United States as a consequence of their sales. As a consequence, the United States has concluded agreements or other arrangements establishing conditions for supply to Taiwan with Australia, Canada, France, Germany, Japan, the Netherlands, and the United Kingdom. Under these agreements or arrangements, supply from these countries is treated as though it came from the United States and reported to the IAEA as such, whether or not the supply actually entered U.S. territory.

Consequently, another objective of the proposed Agreement is to bring this third-party supply under the Agreement. The provisions of the Agreed Minute noted in the previous section require U.S. consent for production on Taiwan of source material, special fissionable material, minor actinides separated from special fissionable material, moderator material, tritium, equipment, or components or for their import from a third party. However, once consent is granted, the specified items become subject to the proposed Agreement, and hence subject to the reporting requirements of the Safeguards Transfer Agreement. Under this procedure, the United States will be aware of all proposed production on Taiwan or any third-party supply and be able to ensure that the United States is not being economically disadvantaged. The authorities on Taiwan and the United States will have the information needed to exercise the reporting requirements of the Safeguards Transfer Agreement. A separate provision of the Agreed Minute provides, *inter alia*, that AIT will not use this consent right to the economic disadvantage of the people or authorities on Taiwan:

> The provisions of the Agreement shall not be used for the purpose of securing unfair commercial or industrial advantages, of restricting trade to the disadvantage of *persons* from the territory of the authorities represented by either *Party*, or of hampering the commercial or industrial interests, whether international or domestic, of the authorities represented by either *Party*.

VI. ADVANCE, LONG-TERM ("PROGRAMMATIC") CONSENT

As noted above, at the request of the authorities represented by TECRO, the proposed Agreement provides advance, long-term ("programmatic") approval from AIT for retransfers by the authorities represented by TECRO of irradiated nuclear material subject to the Agreement to France or other countries or destinations as

may be agreed upon in writing by the Parties, for storage and reprocessing. (It is understood by the Parties that transfers for storage without reprocessing may occur and are covered by this consent.) All such transfers shall be in compliance with the policies, laws, and regulations of the recipient country or destination (Agreed Minute, "Retransfers"). Additionally, all such transfers shall be subject to the following conditions:

- Prior to any such transfer, TECRO shall provide AIT with at least thirty days advance notice of a proposed transfer to allow the authorities represented by AIT sufficient time to obtain confirmation from the receiving country or destination, or, in the case of a proposed transfer to a country that is a member of the European Atomic Energy Community (EURATOM), from EURATOM, that *source material* and *special fissionable material* to be transferred will be held within EURATOM (if the transfer is to a EURATOM member country) or the receiving country or destination subject to the terms and conditions of an agreement for peaceful nuclear cooperation to which the authorities represented by AIT are party and which authorizes nuclear exports from the jurisdiction of the authorities represented by AIT to EURATOM or to that country or destination, as appropriate. TECRO shall not proceed with the proposed retransfer until AIT notifies TECRO of the receipt of such confirmation.

- TECRO through its *designated representatives* shall keep records of any such transfers to any other country or destination as may be agreed upon in writing by the *Parties* and shall upon shipment notify AIT through its *designated representatives* of each transfer.

- The detailed provisions for such notifications and records shall be described in the Administrative Arrangement referred to in Article 14 of the Agreement.

- The transfer of any *special fissionable material* recovered from any such reprocessing to the territory of the authorities represented by TECRO shall require written agreement of the *Parties* and shall be subject to the following conditions:

- Any such *special fissionable material* returned to the territory of the authorities represented by TECRO shall be subject to the Agreement;
- Any *special fissionable material* recovered from any such reprocessing shall be transferred in the form as agreed by the *Parties*; and
- No later than 60 days prior to each shipment to the territory of the authorities represented by TECRO of any *special fissionable material* recovered from any such reprocessing, TECRO shall provide AIT with a written notification that shall include a statement advising that the measures arranged for the international transport are in accordance with the provisions of the Convention on the Physical Protection of Nuclear Material and its subsequent amendments that the *Parties* agree to apply.

This consent regarding retransfers may be suspended or withdrawn in whole or in part by either Party if that Party considers that one or more of the above conditions is not satisfied, or if it considers that exceptional circumstances of concern from a nonproliferation or security standpoint so require. To the extent that time and circumstances permit, the Parties will consult prior to any such suspension or withdrawal. Such exceptional circumstances include, but are not limited to, a determination by either Party that the approval cannot be continued without a significant increase of the risk of proliferation or without jeopardizing the security of the territory of the authorities it represents.

There is precedent for programmatic approval for retransfers of U.S.-obligated irradiated nuclear material to France, with any transfer of the recovered plutonium back to the original location requiring further U.S. approval. Specifically, the United States provided such approval in an agreement for cooperation concluded with Norway in the mid-1980s and in 2009 with the United Arab Emirates (UAE). The U.S. bilateral agreements with Sweden and Finland have been replaced by the 1996 Agreement for Cooperation Between the United States of America and the European Atomic Energy Community Concerning Peaceful Uses of Atomic Energy (U.S.-EURATOM Agreement) (signed November 7, 1995, and March 29, 1996, entered into force April 12, 1996 (House document No. 104-138)), since Sweden and Finland are Member States of the European Union. The bilateral U.S.-Norway Agreement (signed January 12, 1984, entered into force July 2, 1984) remains in force (House Document No. 98-164).

The programmatic approval provisions in the proposed Agreement are modeled very closely on the corresponding provisions in the U.S.-UAE Agreement.

In acceding to the request from the authorities represented by TECRO, the authorities represented by AIT considered the fact that routine removal of spent fuel from the East Asia region offered *prima facie* benefits from a nonproliferation perspective, for example by transferring the obligation to maintain adequate physical protection with regard to this nuclear material to jurisdictions with greater experience in implementing such obligations.

As detailed in Part III above, provision in the Agreement of an advance AIT programmatic consent for retransfer of irradiated material to France for reprocessing or storage is consistent with applicable statutory requirements. There is adequate protection of AIT interests through the AIT ability to terminate the advance consent regarding such retransfers under certain conditions, and through continued AIT control over any return to Taiwan of the recovered special fissionable material. U.S. policy is to limit the number of reprocessing facilities worldwide. The approach taken in the Agreement allows the authorities on Taiwan to plan rationally for their intended civil nuclear power program while maintaining strong nonproliferation policies. It does not result in the establishment of new reprocessing facilities but relies on use of those that already exist, in a jurisdiction to which the United States Government has already given its prior approval for reprocessing U.S.-obligated nuclear material. Under the 1996 U.S.-EURATOM Agreement the United States has given EURATOM advance, long-term ("programmatic") approval for the reprocessing of spent fuel subject to that Agreement. (See House Doc. No. 104-138 for a discussion of that approval.) Any spent fuel subject to the proposed Agreement subsequently retransferred by the authorities on Taiwan to EURATOM would become subject to the U.S.-EURATOM Agreement, including the controls that the United States would have under that U.S.-EURATOM agreement on the disposition of special fissionable material recovered from reprocessing of that spent fuel to countries outside EURATOM. If AIT and TECRO were to agree in writing to the transfer of irradiated source material or special fissionable material to another country or destination, such material must be subject to the terms and conditions of an agreement for cooperation to which the authorities represented by AIT and the recipient country or destination are party and which authorizes nuclear exports from the territory or jurisdiction of the authorities represented by AIT to that country or destination.

The programmatic arrangement for TECRO permitting retransfers of spent nuclear fuel to France or other countries or destinations as may be agreed for storage or reprocessing will help to ensure the continued cooperation of the authorities represented by TECRO with the authorities represented by AIT on nonproliferation matters. Spent fuel disposition is a difficult issue for many recipients of U.S. power reactor fuel. In giving advance approval for these retransfers, the authorities represented by AIT recognize the importance of allowing cooperating partners to manage their fuel cycles in a predictable manner consistent with energy security and nonproliferation objectives.

It should be emphasized that limitations on the types of special fissionable material that may be transferred under the Agreement would preclude the retransfer of separated plutonium from EURATOM to the territory of the authorities represented by TECRO following reprocessing in France.

The proposed Agreement requires that all transfers of spent fuel to third parties for storage and reprocessing must be in compliance with the policies, laws, and regulations of the recipient country or destination, including any requirement that indicates a provisional period for the receipt and treatment of such irradiated source material or special fissionable material, or that the waste produced as a result of the reprocessing be returned to the territory of the authorities represented by TECRO. Should the authorities on Taiwan not be willing or able to take back the spent fuel or radioactive waste associated with storage and reprocessing, the United States government has no legal obligation to accept this waste or spent fuel into the United States, nor does the United States have any other obligation with respect to that waste. This provision also imposes no legal obligation on the United States with respect to disposition of the recovered special nuclear material, in particular the plutonium.

VII. CONCLUSION

Entry into force of the proposed Agreement will put in place a framework for mutually beneficial civil nuclear cooperation between the authorities represented by AIT and the authorities represented by TECRO and provide a foundation for continued collaboration on nuclear non-proliferation goals.

On the basis of the analysis in this NPAS and all pertinent information of which it is aware, the Department of State has arrived at the following assessment, conclusions, views, and recommendations:

1. The safeguards and other control mechanisms and the peaceful use assurances in the proposed Agreement are adequate to ensure that any assistance furnished thereunder will not be used to further any military or nuclear explosive purpose.

2. The Agreement meets all the legal requirements of the Act and the NNPA.

3. Execution of the proposed Agreement would be compatible with the non-proliferation program, policy, and objectives of the United States.

4. Therefore, it is recommended that the President approve and authorize the execution of the proposed Agreement; and that the President determine that the performance of the proposed Agreement will promote, and will not constitute an unreasonable risk to, the common defense and security.

S/ES 201318492

THE SECRETARY OF STATE
WASHINGTON

UNCLASSIFIED December 5, 2013

MEMORANDUM FOR THE PRESIDENT

FROM: John F. Kerry
Secretary of State

Ernest Moniz
Secretary of Energy

SUBJECT: Proposed Agreement Between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States Concerning Peaceful Uses of Nuclear Energy

The attached proposed Agreement for Cooperation Between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States Concerning Peaceful Uses of Nuclear Energy (the "Agreement") will supersede the Agreement for Cooperation Between the Government of the United States of America and the Government of the Republic of China Concerning the Civil Uses of Atomic Energy, signed in Washington, April 4, 1972, as amended and extended March 15, 1974 (the "1972 Agreement for Cooperation"), which will expire by its terms June 22, 2014. If you authorize execution of the Agreement, it will be signed by representatives of the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office in the United States (TECRO). After signature, in accordance with sections 123 b and d of the Atomic Energy Act of 1954, as amended (the "Act"), the Agreement must be submitted to both houses of Congress for a review period of 90 days of continuous session. Unless a joint resolution of disapproval is enacted, the Agreement may be brought into force upon completion of the review period.

The Agreement provides a comprehensive framework for peaceful nuclear cooperation with the authorities on Taiwan based on a mutual commitment to nuclear nonproliferation. The Agreement will continue in force indefinitely. Either party may terminate the proposed Agreement on one year's written notice. The Agreement permits the transfer of information, material, equipment (including reactors), and components for nuclear research and nuclear power production. The proposed Agreement prohibits the possession by the authorities on Taiwan of

sensitive nuclear facilities and any engagement in activities involving sensitive nuclear technology in the territory of the authorities represented by TECRO. It does not permit transfers of Restricted Data, sensitive nuclear technology, sensitive nuclear facilities, or major critical components of such facilities. In the event of termination of the Agreement, key nonproliferation conditions and controls continue with respect to material, equipment, and components subject to the Agreement.

The proposed Agreement provides advance, long-term ("programmatic") consent to the authorities represented by TECRO for the retransfer of irradiated material, which is subject to the Agreement, to France, or other countries or destinations as may be agreed upon in writing by the Parties, for storage and reprocessing. It requires all such transfers must be in compliance with the policies, laws, and regulations of the recipient country or destination, including any requirement indicating a provisional period for the receipt and treatment of such irradiated source material or special fissionable material, or the waste produced as a result of the reprocessing be returned to the territory of the authorities represented by TECRO. Should the authorities on Taiwan not be willing or able to take back the spent fuel or radioactive waste associated with storage and reprocessing, the United States government has no obligation to take this waste or spent fuel back to the United States, nor does the United States government have any other obligation with respect to that spent fuel waste. This provision also conveys no obligation on the United States government with respect to disposition of the recovered special nuclear material, in particular the plutonium.

As noted above, the advance U.S. consent to storage and reprocessing of irradiated material is limited to facilities in France or other countries or destinations as may be agreed upon in writing by the Parties. We have considered the question of whether this advance consent will result in a significant increase of the risk of proliferation beyond that which existed at the time the approval was granted, and have considered whether there would be timely warning "of any diversion well in advance of the time at which a non-nuclear weapon state could transform the diverted material into a nuclear explosive device." We have concluded the advance approval of reprocessing and storage will not result in a significant increase in the risk of proliferation.

Over the last two decades, the authorities on Taiwan have established a generally reliable record on nonproliferation and on commitments to nonproliferation. While the political status of the authorities on Taiwan prevents them from formally acceding to multilateral nonproliferation treaties or

agreements, the authorities on Taiwan have voluntarily assumed commitments to adhere to the provisions of key multilateral treaties and initiatives. The Republic of China ratified the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1970 and ratified the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (Biological Weapons Convention or BWC) in 1972. The authorities on Taiwan have stated they will continue to abide by the obligations of the NPT (i.e., those of a non-nuclear-weapon state) and the BWC, and the United States regards them as bound by both treaties. The authorities on Taiwan follow IAEA standards and directives in their nuclear program, work closely with U.S. civilian nuclear authorities, and have established relationships with mainland Chinese civilian authorities with respect to nuclear safety. A more detailed discussion of the domestic civil nuclear activities and nuclear non-proliferation policies and practices of the authorities on Taiwan, including their nuclear export policies and practices, is provided in the Nuclear Proliferation Assessment Statement (NPAS) at Attachment 4, and in a classified annex to the NPAS submitted to you separately. An addendum to the NPAS containing a comprehensive analysis of the export control system of the authorities on Taiwan with respect to nuclear-related matters, including interactions with countries of proliferation concern and the actual or suspected nuclear, dual-use, or missile-related transfers to such countries, pursuant to section 102A of the National Security Act of 1947 (50 U.S.C. 403-1), as amended, is being submitted to you separately by the Director of National Intelligence.

In accordance with the provisions of Section 123 of the Act and of the Taiwan Relations Act, the proposed Agreement was negotiated under the aegis of AIT by the Department of State, with the technical assistance and concurrence of the Department of Energy. The proposed Agreement has also been reviewed by the members of the Nuclear Regulatory Commission. The Commission's views are being submitted to you separately.

In our judgment, the proposed Agreement satisfies all requirements of U.S. law for agreements of this type. We believe, as well, that AIT cooperation with TECRO in the peaceful uses of nuclear energy under the proposed Agreement will be supportive of U.S. nonproliferation, foreign policy, and commercial interests. We recommend, therefore, you determine, pursuant to Section 123 b of the Act, that performance of the Agreement will promote, and will not constitute an unreasonable risk to, the common defense and security; and that you approve the Agreement and authorize its execution.

Recommendation

That you sign the transmittal letter to the Congress at Attachment A and the Presidential determination, approval, and authorization at Attachment B. (The transmittal will be held until the Agreement is signed.)

Attachments:

Tab A - Draft transmittal letter to the Congress (to be held until after the Agreement is signed)
Tab B - Draft Presidential determination, approval, and authorization
Tab C - Text of Proposed Agreement for Cooperation Between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States Concerning Peaceful Uses of Nuclear Energy
Tab D - Text of side letters to the Agreement
Tab E - Unclassified Nuclear Proliferation Assessment Statement

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CHAIRMAN

December 11, 2013

The President
The White House
Washington, DC 20500

Dear Mr. President:

In accordance with the provisions of Section 123 of the Atomic Energy Act of 1954, as amended, the Nuclear Regulatory Commission reviewed the proposed Agreement between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO) in the United States Concerning Peaceful Uses of Nuclear Energy. It is the view of the Commission that the proposed Agreement includes all of the provisions required by law and provides a sufficient framework for continued civilian nuclear cooperation between AIT and TECRO. The Commission therefore recommends that you make the requisite positive statutory determination, approve the proposed Agreement, and authorize its execution.

Respectfully,

Allison M. Macfarlane