

ARRANGEMENT  
BETWEEN  
THE UNITED STATES NUCLEAR REGULATORY  
COMMISSION  
(NRC)  
AND  
THE OFFICE OF ATOMOS FOR PEACE AUTHORITY OF  
THAILAND  
(OAP)  
FOR THE EXCHANGE OF TECHNICAL INFORMATION  
AND  
COOPERATION IN NUCLEAR SAFETY MATTERS

MARCH 13<sup>TH</sup>, 2012

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The Nuclear Regulatory Commission of the United States of America (hereinafter called the USNRC) and the Office of Atoms for Peace of Thailand (hereinafter called the OAP), the two together hereinafter referred to as the Parties;

Having a mutual interest in a continuing exchange of information pertaining to regulatory matters and of standards required or recommended by their organizations for the regulation of safety and environmental impact of nuclear facilities;

Have agreed as follows:

## I. SCOPE OF THE ARRANGEMENT

### A. Technical Information Exchange

To the extent that the USNRC and OAP are permitted to do so under the laws, regulations, and policy directives of their respective countries, the Parties shall exchange of the following types of technical information relating to the regulation of safety and environmental impact of designated nuclear facilities and to nuclear safety research programs:

1. Topical reports concerning technical safety and environmental effects written by or for one of the Parties as a basis for, or in support of, regulatory decisions and policies.
2. Documents relating to significant licensing actions and safety and environmental decisions affecting nuclear facilities.
3. Detailed documents describing the USNRC process for licensing and regulating certain U.S. facilities designated by the OAP as similar to certain facilities being built or planned in Country and equivalent documents on such Country's facilities.
4. Information in the field of confirmatory safety research which the Parties have the right to disclose, either in the possession of one of the Parties or available to it, including nuclear safety information from the technical areas described in Addenda "A" and "B", attached hereto and made a part hereof. Cooperation in these itemized safety research areas may require a separate agreement, as determined to be necessary by the research organizations of one or both of the Parties. Each Party shall transmit immediately to the other information concerning research results that requires early attention in the interest of public safety, along with an indication of significant implications.

5. Reports on important operating experience, such as reports on nuclear incidents, accidents and shutdowns, and compilations of historical reliability data on components and systems.
6. Regulatory procedures for the safety, safeguards (materials accountancy and control and physical protection), waste management, and environmental impact evaluation of nuclear facilities.
7. Early advice of important events, such as serious operating incidents and government-directed reactor shutdowns, that are of immediate interest to the Parties.
8. Copies of regulatory standards required to be used, or proposed for use, by the regulatory organizations of the Parties.

B. Cooperation in Confirmatory Nuclear Safety Research

The terms of cooperation for joint programs and projects of confirmatory nuclear safety research and development, or those programs and projects under which activities are divided between the Parties, including the use of test facilities and/or computer programs owned by either Party, shall be considered on a case-by-case basis and may be the subject of a separate agreement, if determined to be necessary by the research organizations of one or both of the Parties. When not the subject of a separate agreement, the terms of cooperation may be established by an exchange of letters between the research organizations of the Parties, and shall be subject to the terms and conditions of the present Arrangement. Technical areas specified by such exchanges of letters may be modified subsequently by mutual consent. Temporary assignments of personnel by one Party in the other Party's agency shall also be considered on a case-by-case basis and shall, in general, require a separate letter of agreement between the research organizations of the Parties.

C. Training and Assignments

Within the limits of available resources and subject to the availability of appropriated funds, the USNRC shall try to assist the OAP by providing certain training and experience for OAP safety personnel. Unless otherwise agreed, costs of salary, allowances, and travel of OAP participants shall be paid by the OAP. The following are typical of, but not necessarily restricted to, the kinds of training and experience that may be provided:

1. OAP inspector accompaniment of USNRC inspectors on reactor operation and (if available) reactor construction inspections in the U.S., including extended briefings at USNRC regional inspection offices.
2. Participation by OAP employees in USNRC staff training courses.
3. Assignment of OAP employees for 6-24 month periods within the USNRC staff to work on USNRC staff duties and gain on-the-job experience.
4. Possible training assignments within the radiation control programs of interested USNRC Agreement States.

II. **ADMINISTRATION**

- A. The exchange of information under this Arrangement shall be accomplished through letters, reports, and other documents, and by visits and meetings arranged in advance on a case-by-case basis. Meetings shall be held at such times as mutually agreed to review the exchange of information and cooperation under this Arrangement, to recommend revisions to the provisions of the Arrangement, and to discuss topics coming within the scope of the cooperation. The time, place, and agenda for such meetings

shall be agreed upon in advance. Visits which take place under the Arrangement, including their schedules, shall have the prior approval of the administrators referred to in paragraph II.B.

- B. An administrator shall be designated by each Party to coordinate its participation in the overall exchange. The administrators shall be the recipients of all documents transmitted under the exchange, including copies of all letters unless otherwise agreed. Within the terms of the exchange, the administrators shall be responsible for developing the scope of the exchange, including agreement on the designation of the nuclear energy facilities subject to the exchange, and on specific documents and standards to be exchanged. One or more technical coordinators may be appointed as direct contacts for specific disciplinary areas. These technical coordinators shall assure that both administrators receive copies of all transmittals. These detailed arrangements are intended to assure, among other things, that a reasonably balanced exchange giving access to equivalent available information is achieved and maintained.
- C. The administrators shall determine the number of copies to be provided of the documents exchanged. Each document shall be accompanied by an abstract in English, 250 words or less, describing its scope and content.
- D. The application or use of any information exchanged or transferred between the Parties under this Arrangement shall be the responsibility of the Receiving Party, and the Transmitting Party does not warrant the suitability of such information for any particular use or application.
- E. Recognizing that some information of the type covered in this Arrangement is not available within the agencies which are Parties to this Arrangement, but is available from other agencies of the governments of the Parties, each Party shall assist the other to the maximum extent possible by organizing visits and directing inquiries concerning such

information to appropriate agencies of the government concerned. The foregoing shall not constitute a commitment of other agencies to furnish such information or to receive such visitors.

- F. Nothing contained in this Arrangement shall require either Party to take any action which would be inconsistent with its existing laws, regulations, and policy directives. No nuclear information related to proliferation-sensitive technologies shall be exchanged under this Arrangement. Should any conflict arise between the terms of this Arrangement and those laws, regulations, and policy directives, the Parties shall consult before any action is taken.
- G. Unless otherwise agreed, all costs resulting from cooperation pursuant to this Arrangement shall be the responsibility of the Party that incurs them. The ability of the Parties to carry out their obligations is subject to the appropriation of funds by the appropriate governmental authority and to laws and regulations applicable to the Parties.
- H. Any dispute or questions among the Parties concerning the interpretation or application of this Arrangement arising during its term shall be settled by mutual agreement of the Parties.

### III. EXCHANGE AND USE OF INFORMATION

#### A. General

The parties support the widest possible dissemination of information provided, created or exchanged under this Arrangement, subject to the requirements of each party's national laws, regulations and policies and the need to protect proprietary and other sensitive or privileged information, and subject to the provisions of the Intellectual Property Annex, hereby incorporated into this Arrangement.

B. Definitions

1. The term "information" means unclassified nuclear energy-related regulatory, safety, safeguards, waste management, scientific or technical data, including information on results or methods of assessment, research, and any other knowledge provided, created or exchanged under this Arrangement.
2. The term "proprietary information" means information created or exchanged under this Arrangement which contains trade secrets or other privileged or sensitive commercial information (such that the person having the information may derive a commercial benefit from it or may have a commercial advantage over those who do not have it), and may only include information which:
  - a. has been held in confidence by its owner;
  - b. is of a type which is customarily held in confidence by its owner;
  - c. has not been transmitted by the owner to other entities (including the receiving party) except on the basis that it be held in confidence;
  - d. is not otherwise available to the receiving party from another source without restriction on its further dissemination; and
  - e. is not already in the possession of the receiving party.
3. The term "other confidential or privileged information" means non-classified information, other than "proprietary information," which has been transmitted and received in confidence under this Arrangement and is protected from public disclosure under the laws, regulations, or policies of the country of the party providing the information, or is otherwise restricted by the provider.

C. Marking Procedures for Documentary Proprietary Information

A party receiving documentary proprietary information pursuant to this Arrangement shall respect the privileged nature of such information, provided that such proprietary information is clearly marked with the following (or substantially similar) restrictive legend:

“This document contains proprietary information furnished in confidence under an Arrangement dated March 13<sup>th</sup>, 2012, between the United States Nuclear Regulatory Commission and the OAP and shall not be disseminated outside these organizations, their consultants, contractors, and licensees, or concerned departments and agencies of the Government of the United States and the Government of Thailand, without the prior written approval of Office of Atoms for Peace. This notice shall be marked on each page of any reproduction hereof, in whole or in part. These limitations shall automatically terminate when the proprietary information is disclosed by the owner without restriction.”

This restrictive legend shall be respected by the parties to this Arrangement. Proprietary information bearing this restrictive legend shall not be made public or otherwise disseminated in any manner unspecified or contrary to the terms of this Arrangement without the prior written consent of the transmitting party. Proprietary information bearing this restrictive legend shall not be used by the receiving party or its contractors and consultants for any commercial purposes without the prior written consent of the transmitting party.

D. Dissemination of Documentary Proprietary Information

1. In general, proprietary information received under this Arrangement may be disseminated by the receiving party without prior consent to persons

within or employed by the receiving party, and to concerned Government

departments and Government agencies in the country of the receiving party, provided:

- a. such dissemination is made on a case-by-case basis to persons or departments and agencies having a legitimate need for the proprietary information; and
  - b. such proprietary information shall bear the restrictive legend appearing in Section III.C. of this Arrangement.
2. Proprietary information received under this Arrangement may be disseminated by the receiving party without prior consent to contractors and consultants of the receiving party located within the geographical limits of that party's nation, provided:
  - a. that the proprietary information is used by such contractors and consultants only for work within the scope of their contracts with the receiving party relating to the subject matter of the proprietary information, and shall not be used by such contractors and consultants for any other private commercial purposes; and
  - b. that such dissemination is made on a case-by-case basis to contractors and consultants having a legitimate need for the proprietary information and who have executed a non-disclosure agreement; and
  - c. that such proprietary information shall bear the restrictive legend appearing in Section III.C. of this Arrangement.
3. With the prior written consent of the party furnishing proprietary information under this Arrangement, the receiving party may disseminate

such proprietary information more widely than otherwise permitted under the terms set forth in this Arrangement. The parties shall endeavor to grant such approval to the extent permitted by their respective national laws, regulations and policies, provided:

- a. that the entities receiving proprietary information under Section III.D.3. of this Arrangement, including domestic organizations permitted or licensed by the receiving party to construct or operate nuclear production or utilization facilities, or to use nuclear and materials radiation sources, have a legitimate need for the proprietary information and have executed a non-disclosure agreement; and
- b. that the entities receiving proprietary information under Section III.D.3. of this Arrangement, including domestic organizations permitted or licensed by the receiving party to construct or operate nuclear production or utilization facilities, shall not use such proprietary information for any private commercial purposes; and
- c. that those entities receiving proprietary information under Section III.D.3. of this Arrangement that are domestic organizations permitted or licensed by the receiving party, agree to use the proprietary information only for activities carried out under or within the terms of their specific permit or license.

E. Marking Procedures for Other Confidential or Privileged Information of a Documentary Nature

A party receiving under this Arrangement other confidential or privileged information shall respect its confidential nature, provided such information is clearly marked so as to indicate its confidential or privileged nature and is accompanied by a statement indicating:

1. that the information is protected from public disclosure by the government of the transmitting party; and
2. that the information is transmitted under the condition that it be maintained in confidence.

F. Dissemination of Other Confidential or Privileged Information of a Documentary Nature

Other confidential or privileged information may be disseminated in the same manner as that set forth in Section III.D, "Dissemination of Documentary Proprietary Information."

G. Non-Documentary Proprietary or Other Confidential or Privileged Information

Non-documentary proprietary or other confidential or privileged information provided in seminars and other meetings organized under this Arrangement, or information arising from the attachments of staff, use of facilities, or joint projects, shall be treated by the parties according to the principles specified for documentary information in this Arrangement; provided, however, that the party communicating such proprietary or other confidential or privileged information has placed the recipient on notice as to the character of the information communicated.

H. Consultation

If, for any reason, one of the parties becomes aware that it shall be, or may reasonably be expected to become, unable to meet the non-dissemination provisions of this Arrangement, it shall immediately inform the other party. The parties shall thereafter consult to define an appropriate course of action.

I. Other

Nothing contained in this Arrangement shall preclude a Party from using or disseminating information received without restriction by a Party from sources outside of this Arrangement.

**IV. FINAL PROVISIONS**

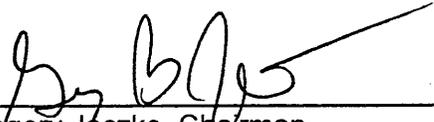
- A. This Arrangement shall enter into force upon signature and, subject to paragraph B. of this Article, shall remain in force for a period of five years. It may be extended for a further period of time by written agreement of the Parties.
- B. Either Party may terminate this Arrangement after providing the other Party written notice 180 days prior to its intended date of termination.

C. All information protected by provisions of this Arrangement as proprietary or other confidential or privileged information shall remain so protected for the duration of this Arrangement and after this Arrangement has expired or been terminated, unless otherwise specifically agreed by the Parties in writing.

DONE at Rockville, Maryland on this 13th day of March 2012, in duplicate, in the English and the Thai languages, both texts being equally authentic.

FOR THE NUCLEAR REGULATORY  
COMMISSION OF THE  
UNITED STATES OF AMERICA:

FOR THE OFFICE OF ATOMS FOR  
PEACE AUTHORITY OF THAILAND:

  
\_\_\_\_\_  
Gregory Jaczko, Chairman

  
\_\_\_\_\_  
Chaivat Toskulkao, OAP Secretary

**CERTIFIED A TRUE COPY**  
BY   
Office of the Secretary

**Addendum A**

1. Digital Instrumentation and Control
2. Reactor and Electrical Equipment Qualification
3. Environmental Transport
4. Radionuclide Transport and Waste Management
5. Dry Cask Storage and Transport
6. Fire Safety Research
7. Nuclear Fuel Analysis
8. Severe Accident Analysis
9. Operating Experience and Generic Issues
10. Human Factors Engineering
11. Organizational Factors/Safety Culture
12. Human Reliability Analysis (HRA)
13. Probabilistic Risk Assessments
14. Radiation Protection and Health Effects
15. Seismic Safety
16. State of the Art Risk Consequences
17. Reactor Containment Structural Safety
18. Reactor Vessel and Piping Integrity
19. Regulatory Guide Update
20. New and Advanced Reactor Designs
21. Decommissioning
22. Thermal Hydraulic Code Applications and Maintenance
23. Uncertainty Analysis for Thermal Hydraulic Kinetics
24. Coupled 3D Neutronic and Plant Thermal Hydraulics
25. Medical Isotope Production
26. Long-term Operational Management
27. Plant and Systems Operations

ADDENDUM “B”

USNRC – OAP Nuclear Safety Research Exchange Areas  
in Which the NRA is Performing or Sponsoring Safety Research

1. Nuclear Safety

Site effects

Neutronics and thermal hydraulics

Severe accidents

Risk analysis reliability and human factors

Structural integrity

Low and intermediate radioactive waste

High level radioactive waste

Organizational impact on safety

2. Radiological Protection

Radiobiology

Biological dosimetry

Epidemiology of ionizing radiation

Occupational radiological protection

Dosimetry

Environmental radiological impact of the operation of nuclear installations

Radiological consequences of severe accidents

Natural radiation

Nuclear Materials

3. Risk Perception by the Public

**INTELLECTUAL PROPERTY ADDENDUM**

Pursuant to Section III. of this Arrangement:

**I. General Obligation**

The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Arrangement and relevant implementing arrangements. Rights to such intellectual property shall be allocated as provided in this Annex.

**II. Scope**

A. This Annex is applicable to all cooperative activities undertaken pursuant to this Arrangement, except as otherwise specifically agreed by the Parties or their designees.

B. For purposes of this Arrangement, "intellectual property" shall mean the subject matter listed in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967 and may include other subject matter as agreed by the Parties.

C. Each Party shall ensure, through contracts or other legal means with its own participants, if necessary, that the other Party can obtain the rights to intellectual property allocated in accordance with this Annex. This Annex does not otherwise alter or prejudice the allocation between a Party and its nationals, which shall be determined by that Party's laws and practices.

D. Except as otherwise provided in this Arrangement, disputes concerning intellectual property arising under this Arrangement shall be resolved through discussions between the concerned participating institutions, or, if necessary, the Parties or their designees. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL) shall govern.

E. Termination or expiration of this Arrangement shall not affect rights or obligations under this Annex.

**III. Allocation of Rights**

A. Each Party shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to translate, reproduce, and publicly distribute scientific and technical journal articles, reports, and books directly arising from cooperation under this Arrangement. All publicly distributed copies of a copyrighted work prepared under this provision shall indicate the names of the authors of the work unless an author explicitly declines to be named.

B. Rights to all forms of intellectual property, other than those rights described in Section III. A above, shall be allocated as follows:

IPR-2

- (1) Visiting researchers shall receive rights, awards, bonuses and royalties in accordance with the policies of the host institution.
- (2)
  - (a) Any intellectual property created by persons employed or sponsored by one Party under cooperative activities other than those covered by Section III.B(1) shall be owned by that Party. Intellectual property created by persons employed or sponsored by both Parties shall be jointly owned by the Parties. In addition, each creator shall be entitled to awards, bonuses and royalties in accordance with the policies of the institution employing or sponsoring that person.
  - (b) Unless otherwise agreed in an implementing or other arrangement, each Party shall have within its territory a right to exploit or license intellectual property created in the course of the cooperative activities.
  - (c) The rights of a Party outside its territory shall be determined by mutual agreement considering the relative contributions of the Parties and their participants to the cooperative activities, the degree of commitment in obtaining legal protection and licensing of the intellectual property and such other factors deemed appropriate.
  - (d) Notwithstanding Section III.B(2)(a) and (b) above, if either Party believes that a particular project is likely to lead to or has led to the creation of intellectual property not protected by the laws of the other Party, the Parties shall immediately hold discussions to determine the allocation of rights to the intellectual property. If an agreement cannot be reached within three months of the date of the initiation of the discussions, cooperation on the project in question shall be terminated at the request of either Party. Creators of intellectual property shall nonetheless be entitled to awards, bonuses and royalties as provided in Section III.B(2)(a).
  - (e) For each invention made under any cooperative activity, the Party employing or sponsoring the inventor(s) shall disclose the invention promptly to the other Party together with any documentation and information necessary to enable the other Party to establish any rights to which it may be entitled. Either Party may ask the other Party in writing to delay publication or public disclosure of such documentation or information for the purpose of protecting its rights in the invention. Unless otherwise agreed in writing, the delay shall not exceed a period of six months from the date of disclosure by the inventing Party to the other Party.

#### **IV. Business Confidential Information**

In the event that information identified in a timely fashion as business-confidential is furnished or created under this Arrangement, each Party and its participants shall protect such information in accordance with applicable laws, regulations, and administrative practices. Information may be identified as "business-confidential" if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, and the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential.