AGREEMENT

BETWEEN

THE AMERICAN INSTITUTE IN TAIWAN

AND

THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES

RELATING TO

PARTICIPATION IN THE USNRC PROGRAM

OF THERMAL-HYDRAULIC

CODE APPLICATIONS AND MAINTENANCE RESEARCH

WHEREAS subject to the availability of personnel, material, and appropriated funds, the American Institute in Taiwan (hereinafter referred to as "AIT"), through its designated representative, U.S. Nuclear Regulatory Commission (hereinafter referred to as "USNRC"), is carrying out research programs on thermal-hydraulic code applications and maintenance:

WHEREAS the Taipei Economic and Cultural Representative Office in the United States (hereinafter referred to as "TECRO") has an interest in access to information which has been developed and continues to arise from this program and wishes to collaborate with AIT:

Considering that the AIT and the TECRO, hereinafter referred to as the Parties:

- 1. Have a mutual interest in continuing the cooperation in the field of reactor and plant systems research with the objective of improving and thus ensuring the safety of civilian nuclear reactors internationally;
- Have a mutual objective of reciprocity in the exchange of technical information;
- 3. Have cooperated, since June 30, 1994, in the thermal-hydraulic code applications and maintenance program (i.e., CAMP) under an agreement between AIT and TECRO, which expired on August 31, 2000, and have a mutual interest in renewing this cooperation;

They have therefore AGREED as follows:

ARTICLE I - PROGRAM COOPERATION

The Parties, in accordance with the provisions of this Agreement and subject to applicable laws and regulations in force in the territories they represent, will join together and renew the cooperative thermal-hydraulic Code Applications and Maintenance Program (CAMP) research sponsored by the Parties.

ARTICLE II - FORMS OF COOPERATION

Cooperation between the Parties through their designated representatives may take the following forms:

- A. The exchange of information in the form of technical reports, experimental data, correspondence, newsletters, visits, joint meetings, and such other means as the Parties agree.
- B. The temporary assignment of personnel of the designated representative of one Party or the designated representative's contractors to the laboratory or facility owned by the designated representative of the other Party or in which the designated representative of the other Party sponsors research. Each assignment will be considered on a case-by-case basis and will generally require a separate agreement between the Parties.
- C. The execution of joint programs and projects, including those involving a division of activities between the designated representatives of the Parties. Each joint program and project will be considered on a case-by-case basis and may be the subject of a separate agreement, if determined to be necessary by either of the Parties to this Agreement or their designated representatives. Otherwise, it will be accomplished by an exchange of letters between the designated representatives of the Parties, subject at least to the terms and conditions of the present Agreement.
- D. The use by the designated representative of one Party of facilities that are owned by or in which research is being sponsored by the designated representatives of the other Party. Use of these facilities may be subject to commercial terms and conditions.
- E. If a Party or its designated representative wishes to visit, assign personnel, or use the facilities owned or operated by entities other than the Parties to this Agreement or their designated representatives, the Parties recognize that the approval of such entities will in general be required by the Receiving Party or its designated representative.
- F. Any other form agreed between the Parties.

ARTICLE III - SCOPE OF AGREEMENT

A. Program Objectives:

- Share experience on code errors and inadequacies and cooperate in resolving the
 deficiencies and maintaining a single, internationally recognized code version.
 Software quality assurance procedures will be followed and code configuration
 control will be maintained. Standard programming language will be applied and
 code portability will be maintained.
- 2. Share user experience on code scalability, applicability, and uncertainty studies.
- 3. Share a well-documented code assessment data base.
- 4. Share experience on full scale power plant safety-related analyses performed using the code. This includes analyses of operating reactors, advanced light water reactors, transients, risk-dominant sequences including the front-end of severe accident sequences, and accident management and operator procedures-related studies.
- 5. Maintain and improve user expertise and documented user guidelines for applying the code.

B. AIT Scope of Responsibility

Subject to the availability of appropriated funds, the AIT's designated representative will provide over the duration of this Agreement the following specified goods and services:

- 1. Coordination and Program Management. The Thermal-Hydraulic Code Applications and Maintenance Program (CAMP) will be coordinated by the AIT's designated representative. Program information will be documented and circulated via newsletters and NUREG/IA documents. A Technical Program Committee (TPC), comprised of representatives from the Parties, will meet regularly to report on code errors and modeling deficiencies, and recommend and assign rankings to code correction and improvement needs, including approaches to resolution. Error corrections and model improvements will be made within the limits of available resources allocated for each code, taking into account a priority list recommended by the TPC. The TPC will also exchange information on applications and assessment results. TPC meetings will be held twice per year, once in the U.S. and once abroad.
- 2. Reactor Systems Simulation Codes. RELAP5/MOD3 and TRACE will be maintained. Code updates will be available in source form on machine-readable media. Complete available documentation will be maintained consisting of: code manuals, models and correlations document, developmental assessment document, user guidelines document, and independent assessment documents. Code configuration control will be maintained to provide an internationally recognized code version.

- 3. The AIT's designated representative will provide to TECRO's designated representative the TRACE code, including the PARCS code. The AIT's designated representative will also provide subsequent updates of the code and associated documentation that are released during the Agreement period.
- 4. The AIT's designated representative will provide to TECRO's designated representative the RELAP5/MOD3 code and associated documentation. The AIT's designated representative will also provide subsequent updates of the code and associated documentation that are released during the Agreement period.
- 5. Symbolic Nuclear Analysis Package (SNAP). SNAP is a graphical user interface and provides a computational environment currently with pre-processor capabilities that assist the user in the development of RELAP5 and TRACE input decks and in running the code. SNAP will be provided. Subsequent updates of SNAP and associated documentation that are released during the Agreement period will also be provided.

C. <u>TECRO Scope of Responsibility</u>

- Cash contribution for Code Maintenance and Improvements. At the time this
 Agreement is signed, TECRO will contribute \$35,000.00 U.S. dollars per year,
 through AIT, to the CAMP Program for the duration of this Agreement. TECRO's
 designated representative will also receive the subsequent updates of the code
 and documentation which are issued during the Agreement period.
- In-Kind Contribution. TECRO's designated representative shall submit to the designated representative of AIT two code assessment reports (except for 2005 when only one code assessment report will be provided) or other work products of equivalent value. The assessment reports shall contain assessment information on the NRC codes that are released through this Agreement. The content of assessment reports is defined in NUREG-1271. AIT's designated representative, the USNRC, will have the nonexclusive right to publish these assessment reports containing nonproprietary information as NUREG/IA reports with proper reference to the source of the reports.

D. Code Applications Analyses to be Exchanged by the Parties

- Code Scaling Applicability and Uncertainty Evaluations. An example of such studies was documented in NUREG/CR-5249.
- 2. Issue Resolution. Issues may arise requiring that information be developed to determine whether a particular problem exists. Examples include pressurized thermal shock, interfacing systems LOCA, and long term cooling following a LOCA. Non-proprietary safety issue analyses performed using the codes specified in Section B.2. of Article III will be exchanged.

ARTICLE IV - ADMINISTRATION OF THE AGREEMENT

- A. The Parties will each designate one individual to coordinate and determine the detailed implementation of this Agreement. These individuals may, at their discretion, delegate this responsibility to an appropriate individual with respect to a given issue. The single designated individual will be referred to as the Administrator of this Agreement.
- B. This Agreement restricts dissemination of proprietary and other confidential or privileged information.
- C. The Parties, through their designated representatives, will endeavor to select technical personnel for assignment in the program who can contribute positively to the program. Technical personnel assigned to the program will be considered visiting scientists (nonsalaried) within the program and will be expected to participate in the conduct of the analyses and experiments of the program as mutually agreed.
- D. Each Party to this Agreement and its designated representatives will have access to all non-proprietary reports written by the technical personnel of the other Party's designated representative assigned to the respective programs that derive from the first Party's participation in those programs carried out under this Agreement.
- E. Administrative details concerning questions such as security, indemnity, and liability related to the assignees or trainees will be addressed in personnel assignment agreements between the respective Parties.
- F. Travel costs, living expenses and salaries of visiting technical personnel or personnel participating in program review meetings shall be borne by their respective organizations.

ARTICLE V - EXCHANGE AND USE OF INFORMATION AND INTELLECTUAL PROPERTY

A. General

The Parties support the widest possible dissemination of information provided or exchanged under this Agreement, subject both to the need to protect proprietary or other confidential or privileged information as may be exchanged hereunder, and to the provisions of the Intellectual Property Annex, which is an integral part of this Agreement.

B. <u>Definitions</u> (As used in this Agreement)

- The term "information" means 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 intended to be provided or exchanged under this Agreement.
- 2. The term "proprietary information" means information created or made available under this Agreement which contains trade secrets or other privileged or confidential commercial information (such that the person having the information

may derive an economic benefit from it or may have a competitive 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 or its designated representative) except on the basis that it be held in confidence;
- is not otherwise available to the receiving Party, or its designated representative, from another source without restriction on its further dissemination; and
- e. is not already in the possession of the receiving Party or its designated representative.
- 3. The term "other confidential or privileged information" means information, other than "proprietary information," which has been transmitted and received in confidence and which is protected from public disclosure under the laws and regulations of the territory represented by the Party providing the information.

C. <u>Marking Procedures for Documentary Proprietary Information</u>

A Party receiving documentary proprietary information pursuant to this Agreement will respect the privileged nature thereof, <u>provided</u> such proprietary information is clearly marked with the following (or substantially similar) restrictive legend:

"This document contains proprietary information furnished in confidence under an Agreement dated _______ between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO) and will not be disseminated outside these organizations, their designated representatives, consultants, contractors, and licensees, and concerned departments and agencies of the authorities in the territories represented by the AIT and TECRO without the prior approval of (name of transmitting Party). This notice will be marked on any reproduction hereof, in whole or in part. These limitations will automatically terminate when this information is disclosed by the owner without restriction."

This restrictive legend will be respected by the receiving Party and proprietary information bearing this legend will not be used for commercial purposes, made public, or disseminated in any manner unspecified by or contrary to the terms of this Agreement without the consent of the transmitting Party.

D. <u>Dissemination of Documentary Proprietary Information</u>

- In general, proprietary information received under this Agreement may be freely disseminated by the receiving Party without prior consent to persons within or employed by the receiving Party, and to concerned authorities in the territory represented by the receiving Party.
- 2. In addition, proprietary information may be disseminated without prior consent:
 - a. to prime or subcontractors or consultants of the receiving Party, or its designated representative, located within the geographical limits of the territory represented by that Party for use only within the scope of work of their contracts with the receiving Party in work relating to the subject matter of the proprietary information;
 - b. to domestic organizations permitted or licensed by the authorities of the territory represented by the receiving Party to construct or operate nuclear production or utilization facilities, or to use nuclear materials and radiation sources, provided that such proprietary information is used only within the terms of the permit or license; and
 - to domestic contractors of organizations identified in D.2.b., above, for use only in work within the scope of the permit or license granted to such organizations;

<u>Provided</u> that any dissemination of proprietary information under D.2.a., b., and c., above, will be on an as-needed, case-by-case basis, will be pursuant to an agreement of confidentiality, and will be marked with a restrictive legend substantially similar to that appearing in Article V. C., above.

With the prior written consent of the Party furnishing proprietary information under this Agreement, the receiving Party may disseminate such proprietary information more widely than otherwise permitted in subsections 1. and 2. The Parties will cooperate in developing procedures for requesting and obtaining approval for such wider dissemination, and each Party will grant such approval to the extent permitted by its policies, regulations, and laws.

E. <u>Marking Procedures for Other Confidential or Privileged Information of a Documentary Nature</u>

A Party receiving under this Agreement other confidential or privileged information will respect its confidential nature, <u>provided</u> such information is clearly marked so as to indicate its confidential or privileged nature and is accompanied by a statement indicating:

 that the information is protected from public disclosure by the authorities of the territory represented by the transmitting Party or its designated representative and 2. that the information is transmitted under the condition that it be maintained in confidence.

F. <u>Dissemination of Other Confidential or Privileged Information of a Documentary</u> Nature

Other confidential or privileged information may be disseminated in the same manner as that set forth in paragraph D., <u>Dissemination of Documentary Proprietary Information</u>

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 arranged under this Agreement, or information arising from the attachments of staff, use of facilities, or joint projects, will be treated by the Parties or their designated representatives according to the principles specified for documentary information in this Agreement; provided, however, that the Party, or designated representative, 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 or their designated representatives becomes aware that it will be, or may reasonably be expected to become, unable to meet the non-dissemination provisions of this Agreement, it will immediately inform the other Party or its designated representative. The Parties will thereafter consult to define an appropriate course of action.

I. Other

- Nothing contained in this Agreement shall preclude a Party or its designated representative from using or disseminating information received without restriction by a Party or its designated representative from sources outside of this Agreement.
- 2. All computer codes of the designated representative of AIT disseminated under this Agreement are to be considered privileged information unless otherwise noted, are protected as such by the designated representative of AIT, and shall be treated likewise by TECRO and its designated representative. They are, in particular, subject to all of the provisions of this Article with the exception that they need not be marked with the restrictive designation. The codes are subject to this protection in both object and source forms and as recorded in any media.
- 3. The computer codes of AIT's designated representative and other related analytical techniques covered under this Agreement, and any improvements, modifications or updates to such codes or techniques are for the purpose of reactor and plant systems research and licensing and shall not be used for commercial purposes, or for other benefits not related to the study of reactor safety without the prior consent of AIT's designated representative.

Among the code uses that will be permitted under the CAMP agreements are those related to research in the reactor safety area and analyses performed by CAMP members or their contractors that can assist regulators and plant personnel in assessing the safety of the plant, analyzing operating events, and training of operators. Specific examples of permitted analyses include: design basis accidents (e.g., loss-of-coolant-accidents), anticipated transients, accident management and emergency operating procedures, mid-loop operation, analyses to support PRA success criteria, power upgrades and reload.

Prohibited uses of the code include: (1) analyses to develop a new reactor design; and (2) analyses to support power upgrades and reload in the territory represented by AIT, unless performed by a designated representative of AIT.

- 4. The codes provided by the designated representative of AIT and other related analytical techniques shall not be advertised directly or by implication to obtain contracts related to the construction or servicing of nuclear facilities, nor shall advertising imply that the AIT's designated representative has endorsed any particular analyses or techniques.
- 5. All reports published within the scope of this Agreement and all meetings held shall be in English.

ARTICLE VI - DISPUTES AND WARRANTY OF INFORMATION

- A. All costs arising from implementation of this Agreement shall be borne by the designated representatives of the Party that incurs them except when specifically agreed to otherwise. It is understood that the ability of the Parties' designated representatives to carry out their obligations is subject to the availability of funds. It is also understood that the terms herein agreed to represent feasible commitments according to the best understanding regarding resources and costs of the Parties' designated representatives at the time of signature.
- B. Cooperation under this Agreement shall be in accordance with the laws and regulations of the territories of the Parties. Any dispute between the Parties concerning the Parties' interpretation or application of the Agreement shall be settled by mutual agreement.
- C. Information furnished by one Party or its designated representative to the other under this Agreement shall be accurate to the best knowledge and belief of the Party or its designated representative supplying the information. However, the application or use of any information exchanged or transferred between the Parties or their designated representatives under this Agreement shall be the responsibility of the Party or its designated representative receiving the information, and the Transmitting Party or its designated representative does not warrant the suitability of the information for any particular use or application.

D. AIT and its designated representative make no warranties whatsoever for the ability or suitability of any AIT designated representative's code or other analytical technique to perform in any particular manner for any particular purpose, or to accomplish any particular task. AIT and its designated representative accept no liability for damages of any type that may result from the use of codes or other analytical techniques provided under this Agreement.

ARTICLE VII - FINAL PROVISIONS

- A. This Agreement shall be effective upon signature of both Parties and remain in force for five years. This Agreement may be extended for an additional period of time, upon mutual agreement of the Parties.
- B. The Parties enter into this Agreement with the understanding that reasonable allowances for normal delays will be made in completing the work. The Parties and their designated representatives have the right to utilize information provided under this Agreement after its termination; however, all information protected by provisions of this Agreement as proprietary, confidential, privileged, or otherwise subject to restriction on disclosure shall remain so protected indefinitely unless mutually agreed otherwise in writing.
- C. A Party may terminate this Agreement after providing the other Party written notice of its intent to terminate at least 180 days in advance. The Party not terminating will notify the terminating Party before the effective date of termination if termination will result in the terminating Party receiving a disproportionate share of the expected benefit from this Agreement. Both Parties will endeavor to reach an equitable settlement of the matter through negotiation.
- D. The Parties to this Agreement reserve the right to modify or extend the specific activities described in Article III within the intended scope of the Agreement upon written concurrence of their Administrators.

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E. If the portion of the research program of any Party that is pertinent to this Agreement is substantially reduced or eliminated, the technical scope described in Article III may be adjusted to substitute research of equivalent programmatic interest upon mutual agreement of the Parties.

IN WITNESS WHEREOF, the undersigned, being duly authorized, have signed this Agreement. DONE in duplicate at \(\)

FOR THE AMERICAN INSTITUTE IN TAIWAN:

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

BY: Bark J. Saly

NAME BARBATAN J. SCHRAGE

TITLE: MANAGING DIRECTOR, A.I.

DATE: 12/13/04

PLACE: Washington, D.C.

BY: Jan Ling Towne Chang

TITLE: Deputy Representativi

DATE: 12/13/04

PLACE: Washington. D. C.

INTELLECTUAL PROPERTY RIGHTS ANNEX

Pursuant to Article V of this Agreement:

AIT and TECRO and their designated representatives shall ensure adequate and effective protection of intellectual property created or furnished under this Agreement and relevant implementing arrangements. The designated representatives of AIT and TECRO shall notify one another in a timely fashion of any inventions or copyrighted works arising under this Agreement and seek protection for such intellectual property in a timely fashion. Rights to such intellectual property shall be allocated as provided in this Annex.

I. SCOPE

- A. This Annex is applicable to all cooperative activities undertaken pursuant to this Agreement, except as otherwise specifically agreed by AIT and TECRO or their designated representatives.
- B. For purposes of this Agreement, "intellectual property" shall have the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967; viz., "intellectual property' shall include the rights relating to:
 - literary, artistic and scientific works,
 - performances of artists, phonograms, and broadcasts.
 - inventions in all fields of human endeavor.
 - scientific discoveries.
 - industrial designs.
 - trademarks, service marks, and commercial names and designations,
 - protection against unfair competition, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields."
- C. This Annex addresses the allocation of rights, interests, and royalties between AIT and TECRO and their designated representatives. Acting through their designated representatives, AIT and TECRO and their designated representatives shall ensure that the other Party can obtain rights to intellectual property allocated in accordance with the Annex by obtaining those rights from its own participants through contracts or other legal means, if necessary. This Annex does not otherwise alter or prejudice the allocation between:
 - AIT and citizens of the territory represented by AIT which shall be determined by the laws and practices applicable in that territory or
 - TECRO and nationals of the territory represented by TECRO which shall be determined by laws and practices applicable in that territory.
- Disputes concerning intellectual property arising under this Agreement should be resolved through discussions between AIT and TECRO and their designees.
 Upon mutual agreement of AIT and TECRO, a dispute shall be submitted to an

arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless AIT and TECRO 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 Agreement shall not affect rights or obligations under this Annex.

II. ALLOCATION OF RIGHTS

- A. The designated representatives of AIT and TECRO shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries and other territories to translate, reproduce, and publicly distribute scientific and technical journal articles, reports, and books directly arising from cooperation under this Agreement. All publicly distributed copies of 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 II.A. above, shall be allocated as follows:
 - Visiting researchers, for example, scientists visiting primarily in furtherance of their education, shall receive intellectual property rights under the policies of the host institution. In addition, each visiting researcher named as an inventor shall be entitled to share in a portion of any royalties earned by the host institution from the licensing of such intellectual property.
 - 2. (a) For intellectual property created during joint research, for example, when the designated representatives of AIT and TECRO, participating institutions, or participating personnel have agreed in advance on the scope of work, the designated representatives of AIT and TECRO shall be entitled to obtain all rights and interests in the territory they represent. For inventions made in the territory represented by AIT, AIT's designated representative shall have first option to acquire all rights and interests in territories not represented by AIT or TECRO. For inventions made in the territory represented by TECRO, TECRO's designated representative shall have first option to acquire all rights and interests in territories not represented by TECRO or AIT. If research is not designated as "joint research," rights to intellectual property arising from the research will be allocated in accordance with paragraph II.B.1. In addition, each person named as an inventor shall be entitled to share in a portion of any royalties earned by either institution from the licensing of the property.
 - (b) Notwithstanding paragraph II.B.2.(a), if a type of intellectual property is available under the laws of the territory represented by AIT but not under the laws and practices applicable in the territory represented by TECRO, the designated representative of AIT shall be entitled to all rights and interests worldwide. Notwithstanding paragraph II.B.2.(a), if a type of

intellectual property is available under the laws and practices applicable in the territory represented by TECRO but not under the laws of the territory represented by AIT, the designated representative of TECRO shall be entitled to all rights and interests worldwide. Persons named as inventors of the property shall nonetheless be entitled to royalties as provided in paragraph II.B.2.(a).