AGREEMENT

BETWEEN

THE COORDINATION COUNCIL FOR NORTH AMERICAN AFFAIRS

AND

THE AMERICAN INSTITUTE IN TAIWAN

RELATING TO

PARTICIPATION IN THE USNRC PROGRAM OF SEVERE ACCIDENT RESEARCH

WHEREAS subject to the availability of personnel, material, and appropriated funds, the U.S. Nuclear Regulatory Commission (hereinafter referred to as "USNRC"), operating as the designated representative of the American Institute in Taiwan (hereinafter referred to as "AIT"), is carrying out programs of research into the effects of severe accidents on nuclear power reactors:

WHEREAS the Coordination Council for North American Affairs (hereinafter referred to as "CCNAA") has an interest in access to information which has been developed and continues to arise from these programs and wishes to collaborate with AIT by exchanges of reports and data and by sponsoring the assignment of individuals to these programs;

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

- Have a mutual interest in cooperation in the field of severe accident safety research with the objective of improving and thus ensuring the safety of civilian nuclear installations on an international basis;
- 2. Recognize a need to equitably share both the resources resulting from this research and the effort required to develop those resources:

3. Have cooperated in this program in the past under an Agreement between CCNAA and AIT which expired in October 1990.

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 their respective territories, will join together in cooperative research for the severe accident research program sponsored by the AIT and for similar research programs sponsored by the CCNAA.

ARTICLE II - FORMS OF COOPERATION

Cooperation between the Parties may take the following forms:

- A. 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. Temporary assignment of personnel of one Party or of its contractors to the laboratory or facilities owned by the other Party or in which it sponsors research; each assignment shall be considered on a case-by-case basis.
- C. Execution of joint programs and projects, including those involving a division of activities between the Parties; each joint program and project shall be considered on a case-by-case basis.
- D. Use by one Party of facilities that are owned by the other Party or in which research is being sponsored by the other Party; such use of facilities may be subject to commercial terms and conditions.

- E. If either Party wishes to visit, assign personnel, or use the facilities owned or operated by entities other than the Parties to this Agreement, the Parties recognize that prior approval of such entities will in general be required regarding terms upon which such visit, assignment, or use shall be made.
- F. Any other form agreed between the Parties.

ARTICLE III - SCOPE OF AGREEMENT

A. AIT Scope of Responsibility

Subject to the availability of appropriated funds, the AIT shall provide over the duration of this Agreement the following specified goods and services related to the USNRC severe accident safety research program specified in Appendix A.

Within the above guidelines and subject to CCNAA financial contributions as indicated in Article VI, the AIT through the USNRC will provide the CCNAA with the following:

- Copies of all pertinent technical program documents such as quick-look reports, technical memoranda and notes, and laboratory reports as soon as they have received appropriate management review by USNRC acting on behalf of AIT.
- On request, make available to the CCNAA the above computer codes developed under this program and provide assistance in the installation of these codes in CCNAA computation system.
- Permit personnel sponsored by the CCNAA to participate in technical review meetings and technical progress meetings except for those meetings primarily concerned with administrative and fiscal matters;

- Facilitate visits by personnel sponsored by the CCNAA to sites at which work relevant to the objective is being carried out;
- Permit the assignment of personnel sponsored by the CCNAA to participate and work in the AIT's program on severe accident research and to have full and ready access to relevant documentation, codes and results as described above.

B. CCNAA Scope of Responsibility

Subject to the availability of appropriated funds, the CCNAA shall provide, over the duration of this Agreement, the following specified goods and services related to the nuclear reactor safety research areas specified in this Agreement.

1. Severe Accident Research Program

The CCNAA will participate in the AIT's severe accident program and future related programs in this area of nuclear safety research. The CCNAA will be considered a full partner in this international program upon making financial contributions as indicated in Article VI.

Assessments will be done by the CCNAA or its contractors in applications of severe accident codes received from the AIT under the scope of this Agreement. The assessments will consist of applications done on experimental facilities at which the CCNAA has access to and/or Taiwan nuclear power plants.

To the extent possible, the CCNAA will provide the AIT with the results of the collaboration resulting from CCNAA severe accident research corresponding to technical areas under the scope of this Agreement.

ARTICLE IV - ADMINISTRATION OF THE AGREEMENT

- A. The AIT and the CCNAA will each designate one representative to coordinate and determine the detailed implementation of this Agreement. These representatives may, at their discretion, delegate this responsibility to the appropriate technical staff with respect to a given issue. The single designated representative will be referred to as an Administrator of this Agreement.
- B. The Agreement states restrictions concerning dissemination of proprietary, confidential, or privileged information. Other information that may be restricted includes matters related to organization, budget, personnel, or management.
- C. The AIT and the CCNAA will endeavor to select technical personnel for assignment to these cooperative programs who can contribute positively to the programs. AIT designated personnel and CCNAA designated technical personnel assigned for extended periods will be considered visiting scientists (nonsalaried) within the programs in this Agreement and will be expected to participate in the conduct of the analysis and/or experiments as necessary.
- D. Each Party to this Agreement will have access to all reports written by its partner's technical personnel assigned to the respective programs that derive from its participation in those programs.
- E. Travel costs, living expenses, and salaries will be borne by the Parties who incurred them unless specified otherwise.

ARTICLE V - EXCHANGE AND USE OF INFORMATION AND INTELLECTUAL PROPERTY

A. <u>General</u>

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 Addendum, 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.
- 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;
 - 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 information, other than "proprietary information," which is protected from public disclosure under the laws and regulations of the jurisdiction of the Party providing the information and which has been transmitted and received in confidence.

C. Marking Procedures for Documentary Proprietary Information

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

This restrictive legend shall be respected by the receiving Party and proprietary information bearing this legend shall 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 located within the geographical limits of that Party's territory 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 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
 - c. 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, shall be on an as-needed, case-by-case basis, shall be pursuant to an agreement of confidentiality, and shall be marked with a restrictive legend substantially similar to that appearing in C. above.

3. 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 shall 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</u> of a Documentary Nature

A Party receiving under this Agreement other confidential or privileged information shall 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 transmitting Party or where transmitted by CCNAA, in the territory represented by CCNAA; 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</u> <u>Documentary Nature</u>

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. <u>Non-Documentary Proprietary or Other Confidential or Privileged</u> 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, shall be treated by the Parties according to the principles specified for documentary information in this Agreement; 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 will be, or may reasonably be expected to become, unable to meet the nondissemination provisions of this Agreement, 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 Agreement shall preclude a Party from using or disseminating information received without restriction by a Party from sources outside of this Agreement.

ARTICLE VI - FINANCIAL CONSIDERATIONS

In addition to the technical contributions indicated under Article III.B., and through the auspices of AIT, the CCNAA will contribute financially to the USNRC programs described in this Agreement. Specifically, the CCNAA will contribute \$150,000 USD per year for four years to the Cooperative Severe Accident Research Program. The first payment is to be made upon signature, and the following three payments are to be made on or before the last day of February in 1994, 1995 and 1996.

ARTICLE VII - DISPUTES AND WARRANTY OF INFORMATION

- A. All costs arising from implementation of this Agreement shall be borne by the Party that incurs them except when specifically agreed to otherwise by both Parties.
- B. Cooperation under this Agreement shall be in accordance with the laws and regulations applicable to the respective Parties. Any dispute or questions, other than those related to intellectual property, between

the Parties concerning the interpretation or application of this Agreement arising during its term shall be settled by mutual agreement of the Parties.

C. Information furnished by one Party to the other under this Agreement shall be accurate to the best knowledge and belief of the Party supplying the information. However, neither Party gives any warranty as to the accuracy of such information or shall have any responsibility for the consequences of any use to which such information may be put by the other Party or by any third Party.

ARTICLE VIII - FINAL PROVISIONS

- A. This Agreement shall enter into force, effective January 1, 1993, and shall remain in force for a period of four years. 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 to in writing.
- B. Either Party may withdraw from the present Agreement after providing the other Party written notice at least 180 days prior to its intended date of withdrawal. The Party not withdrawing shall reserve the right to determine if the withdrawal will result in the other Party receiving a disproportionate share of the expected benefit from this Agreement. If so, both Parties will endeavor to reach an equitable settlement of the matter through negotiation.
- C. All costs arising from implementation of this Agreement shall be borne by the Party that incurs them except when specifically agreed to otherwise by both Parties.
- 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 its Administrators.

E. The AIT and the CCNAA recognize the benefits of international cooperation and will endeavor to obtain a mutually agreeable continuation of this Agreement before its expiration.

In witness whereof, the Parties have hereto executed this Agreement effective January 1, 1993.

| FOR THE AMER | ICAN INSTITUTE IN TAIWAN |
|---|--------------------------|
| BY: | anhellel |
| TITLE: | Deputy Managing Director |
| DATE: | February 18, 1993 |
| PLACE: | Arlington, Virginia |
| FOR THE COORDINATION COUNCIL FOR NORTH AMERICAN AFFAIRS | |
| BY: | |
| TITLE: | Deputy Representative |
| DATE: | June 24, 1993 |
| PLACE: | Washington, D.C. |

APPENDIX A

USNRC SEVERE ACCIDENT RESEARCH PROGRAM

The AIT will make available to the CCNAA the results of the USNRC's severe accident research program which consists of the following elements:

1. CORE MELT PROGRESSION

ACRR in-reactor experiments on late phase melt progression.

Ex-reactor experiments on metallic melt relocation and blockage formation.

Late-phase core melt modeling.

Full-length NRU in-reactor experiments on melt progression and hydrogen generation.

Core melt progression modeling for SCDAP/RELAP.

Analysis support for German CORA program.

Lower head failure analysis.

BWR core melt phenomena modeling.

2. FUEL-COOLANT INTERATIONS

Molten core coolant interactions analysis.

FISSION PRODUCT BEHAVIOR

VICTORIA development and configuration control. Rubble bed models for VICTORIA. Aerosol models for VICTORIA. Ex-reactor fission product release experiments. Containment aqueous and gas phase iodine behavior. Pool scrubbing experiments and related codes.

4. CORE-CONCRETE INTERACTIONS

MCCI experiments in the SURC facility.
Thermal hydraulics of Molten Core Concrete Interactions.

5. DIRECT CONTAINMENT HEATING

DCH experiments in the SURTSEY facility.
DCH analysis and small-scale experiments.
Severe Accident Scaling Analysis Methodology.
DCH benchmark experiments.

HYDROGEN BEHAVIOR

Hydrogen behavior program. Hydrogen migration and mixing studies.

7. INTEGRATION CODES AND APPLICATIONS

MELCOR Accident Analysis Code development and maintenance. CONTAIN containment analysis code. SCDAP/RELAP code maintenance. COMMIX 3-dimensional code.

INTELLECTUAL PROPERTY ADDENDUM

Pursuant to Article V of this Agreement:

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

I. SCOPE

- A. This Addendum is applicable to all cooperative activities undertaken pursuant to this Agreement, except as otherwise specifically agreed by the Parties or their designees.
- 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 Addendum addresses the allocation of rights, interests, and royalties between the Parties. Each Party shall ensure that the other Party can obtain rights to intellectual property allocated in accordance with the Addendum by obtaining those rights from its own participants through contracts or other legal means, if necessary. This Addendum does not otherwise alter or prejudice the allocation between
 - AIT and nationals of the territory represented by AIT which shall be determined by the laws of that territory or
 - CCNAA and nationals of the territory represented by CCNAA which shall be determined by laws and practices applicable in that territory.

- D. Disputes concerning intellectual property arising under this Agreement should 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 Agreement shall not affect rights or obligations under this Addendum.

II. 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 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:
 - 1. 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.
 - (a) For intellectual property created during joint research, for example, when the Parties, participating institutions, or participating personnel have agreed in advance on the scope of work, each Party shall be entitled to obtain all rights and interests in its own territory. The Party in whose territory the invention was made shall have first option to acquire all rights and interests in third countries. 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 one Party but not the other Party, the Party whose laws provide for this type of protection 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).