ACREEMENT BETWLEN
THE AMERICAN INSTITUTE IN TAIWAN
AND

THE UNITED STATES NUCLEAR REGULATORY COMMISSION
RELATING TO

PARTICIPATION IN THE USNRC INTERNATIONAL PIPING INTEGRITY RESEARCH PROGRAM

WHEREAS, the United States Nuclear Regulatory Commission (hereinafter referred to as "USNRC") is sponsoring at Battelle Memorial Institute, Columbus Laboratories (hereinafter referred to as "Battelle") a program of safety research on ductile piping fracture mechanics under USNRC Contract No. NRC-04-84-103 (hereinafter referred to as "Degraded Piping Program");

WHEREAS, USNIC may execute cooperative participation agreements with other parties in connection with the participation of such parties in the USNRC International Piping Integrity Research Group program (hereinafter referred to as "IPIRG") under terms and conditions like those set forth herein:

WHEREAS, Battelle has been authorized by the USNRC to execute agreements with various other parties for the participation of such parties as members in IPIRG;

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WHEREAS, USNRC and the American Institute in Taiwan (hereinafter referred to as "AIT") have a mutual interest in cooperation in the field of light water reactor sefety research;

WHEREAS, AIT is interested in participating in IPIRC and will do so through its designated representative, the Coordination Council for North American Affairs (hereinafter referred to as "CCNAA");

AIT and USNRC agree as follows:

ARTICLE 1 - OBJECTIVE

- 1.1 AIT, through its designated representative CONAA, in accordance with the provisions of this Agreement and subject to applicable laws and regulations, will participate in the IPIRG, as described in Appendix I to this Agreement, or as amended.
- 1.2 The research program included under this Agreement is directed to the development and experimental verification of ductile piping fracture mechanics analysis techniques and piping material properties data. This will include performance of fracture tests on pipe specimens, development of material properties data, and performance of analytic studies with the objective of developing engineering solutions that can be applied to the evaluation of real or postulated pipe cracks under service conditions. In view of the significant information on ductile piping fracture mechanics to

be derived from this unique program, and in consideration of the large scope of effort and cost attendant in carrying out such a program, the USNRC considers this project to be one appropriate for collaborative interest by other parties.

- 1.3 The technical work program set forth in Appendix I constitutes the program to be carried out by Battelle for the USNEC in collaboration with participants of the IPIEG.
- 1.4 The USNRC is also sponsoring several programs pertinent to piping integrity. The programs and their work scopes are described in Appendix II. The USNRC will make the results of those programs available to participants in IPIRC. The participants will be permitted to have detailed consultations with the scientists cognizant of these programs, provided that such consultations do not present a significant time or cost burden to the programs. Such consultations are subject to prior approval by the USNRC.

ARTICLE 2 - SCOPE OF ALREEMENT

2.1 Battelle will provide the necessary management, personnel, materials, equipment and services to carry out the IPIRG program. This will be accomplished by Battelle through its Contract No. NRC-04-86-106.

- 2.2 CCNAA, as the designated representative of AIT in the IPIRG, will receive from Battelle a monthly letter report presenting the progress and status of each task as described in Appendix I, or as amended.
- 2.3 CONAA, as the designated representative of AIT in the IPIRG, will have access to all experimental data generated by the Degraded Piping Program and IPIRG under the USNEC Contract No. NEC-04-86-106 with Battelle prior to and during the period of this Agreement. This involves raw test data from pipe fracture experiments, and material properties testing as described in Appendix II, or as amended. Battelle will make its best effort to have the experimental data in the mail within one month of the completion of the experiment.
- 2.4 CCNAA, as the designated representative of AIT in the IPIRG, will have access to the results of analyses performed as part of the Degraded Piping Program and IPIRG under the USNEC Contract No. NEC-04-86-106 with Battelle prior to and during the period of this Agreement.
- 2.5 CONAA, as the designated representative of AIT in the IPIRG, will have access to new ductile piping fracture mechanics solutions developed as part of the Degraded Piping Program and IPIRG under the USNRC Contract No. NRC-04-86-106 with Battelle prior to and during the period of this Agreement. As solutions are developed they will be provided to CONAA.

- 2.6 CONAA, as the designated representative of AIT in the IPIRG, shall have access to the NRC Computerized Piping Material Properties Data Base system once it is operational and has been verified for correctness.

 Specific data developed for the system will be made available as they are developed. CONAA shall also have access to the other USNRC funded programs as described in Appendix II and consistent with Article 1.4.
- 2.7 CCNAA, as the designated representative of AIT in the IPI...i, may send representatives to visit Battelle test facilities and, on a case by case basis, may assign a mutually agreed upon technical specialist for participation in the performance and analysis of the IPIRG experiments conducted under the USNRC Contract No. NRC-04-86-106 with Battelle subject to approval by the USNRC and Battelle concerning the terms upon which such visits or assignments shall be made.
- 2.8 AIT agrees that CONAA, as the designated representative of AIT in the IPIRG, will provide Battelle, USNRC, and other parties contributing to the funding of the IPIRG program access to all results obtained from the participant's analyses of information and experimentation developed as part of the IPIRG program.
- 2.9 Funds contributed by AIT will be used to perform tests and analyses under the IPIRG program's Statement of Work as described in Appendix I.

2.10 AIT agrees that CONAA, as the designated representative of AIT in the IPIRG, will bear the total costs of transportation, living expenses and any other costs arising from its participation under this Agreement.

2.11 Parties not participating in the IPING program, outlined in Appendix I, may wish to propose the performance of research tasks. Such research may be performed only with the concurrence of USNRC and the Technical Advisory Group, and all information derived from such activities will be made available to the IPIRG membership.

ARTICLE 3 - ESTIMATED PROJECT COSTS, SCHEDULE AND PAYMENT

- 3.1 It is understood that work on the IPIRG program, as presently contemplated, will continue for a period of at least three (3) years. USNRC will contribute \$500,000 U.S. annually over that three year period, contingent upon the availability of appropriated funds.
- 3.2 AIT, as a contribution for participation in the IPIRG program, agrees to pay USNRC the amount of \$100,000 U.S. annually for the period of this Agreement. The initial payment is to be made within thirty days of the final signing of this Agreement and subsequent payments within thirty days of the anniversary date of this Agreement for each of the remaining years under this Agreement.
- 3.3 Battelle has agreed with USNRC that all work will be conducted on a cost-reimbursement, best-efforts basis within the time and funds provided.

AlT shall not be obligated to reimburse USNRC for costs incurred in excess of their required contribution as set forth in Article 3.2.

- 3.4 The USNRC agrees that Battelle's costs shall be determined on the basis of their normal accounting procedures and practices and shall be in accordance with (1) applicable Federal Acquisition Regulation cost principles, and (2) any specific contractual agreements.
- 3.5 If AIT's support of IPIRG is conditioned upon annual commitments of funds, then AIT shall notify USNRC immediately of any changes in funding for succeeding years.
- 3.6 Additional members may be included in the IPIRG during the period of this Agreement under similar terms and conditions. Any new participant will be expected to pay the same amount paid by other participants for information developed in the IPIRG program prior to the new participants joining the program.

ARTICLE 4 - PROGRAM MANAGEMENT

4.1 The USNRC shall appoint a representative who shall have the authority and be solely responsible for approving, scheduling, and managing the work to be performed under the IPIRG program that is conducted under the USNRC Contract No. NRC-04-86-106 with Battelle and for supervising its

execution. The name of the appointed representative shall be furnished to AIT and may be changed by the USNRC from time to time.

- 4.2 The USNRC shall have the authority and responsibility for determining the most beneficial scope and location of work to be performed using funds contributed by IPIRG members. In discharging this responsibility, the USNRC shall consider the broad program direction provided by the Technical Advisory Group as described in Article 4.3.
- 4.3 The IPIRG membership shall consist of each participant that contributes \$200,000 U.S. annually in accordance with Article 3.2. Under certain circumstances, however, a membership may consist of a contribution of \$100,000 U.S. annually. A membership can consist of a group of organizations within a single country. However, those organizations shall designate a single organization or representative that shall be contractually connected to the IPIRG program.
- 4.3.1 The IPIRG members shall establish a Technical Advisory Group composed of one representative from each member. The representative may be assisted by consultants of the organizations he represents. The Technical Advisory Group shall meet semiannually and be responsible for reviewing experimental results and planned work. The location of these meetings shall include the United States, Europe and Japan. Participants' contributions to total IPIRG program funding will be considered in determining the number of meetings to be held at a particular location. The Technical Advisory Group

shall be chaired by the USNRC representative. There is only one vote for each \$200,000 U.S. annual membership contribution. CCNAA, as the designated representative of AIT in the Technical Advisory Group, shall have one-half of a vote in accordance with AIT's \$100,000 U.S. annual membership contribution. Broad program direction for IPIRG program research shall be formulated by a majority vote of the member representatives in the Technical Advisory Group, provided that such program direction is consistent with the USNRC's research objectives as stated in USNRC Contract No. NRC-04-86-106.

4.4 Subject to programmatic guidance by the USNRC under 4.1 above, the detailed implementation of the program as currently described in Appendix I shall be under Battelle management. The program manager appointed by Battelle shall be approved by the USNRC.

ARTICLE 5 - EXCHANGE AND USE OF INFORMATION

- 5.1 Dissemination of information developed, provided or exchanged under this Agreement shall be in accordance with Article 2.4 and 2.5 hereto, subject to the need to protect proprietary information as defined in Article 5.2 below, and subject to the provisions of Article 7, PATENTS.
 - 5.2 As used in this Agreement, the following definitions apply:

- (i) The term "information" means scientific or technical data, results or methods of research and development, and any other information intended to be provided or exchanged under this Agreement.
- (ii) The term "proprietary information" means information developed outside this Agreement which contains trade secrets or other privileged or confidential connercial information, and may only include information which:
 - (a) has been held in confidence by its owner; and
 - (b) is of a type which is customarily held in confidence by its owner; and
 - (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; and
 - (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.

- 5.3 If OCNAA, as the designated representative of AIT in the IPIRG, has access to proprietary information which would be useful to the activities under this Agreement, such information may be communicated to AIT. USNEC and Battelle, but shall not be accepted for the IPIRG program except as agreed in writing between AIT, Ecttelle, USNEC and OCNAA.
- 5.4 The party receiving proprietary information pursuant to this Agreement shall respect the privileged nature thereof, provided such proprietary information is clearly marked with the appropriate legend of the transmitting party and with the following (or substantially similar) restrictive legend:

This document contains proprietary information furnished in confidence under the United States Nuclear Regulatory Commission IPIRG Program and shall not be disseminated outside the AIT, USNRC, Battelle and the Participants in the IPIRG Program without the prior approval of the owner. This notice shall be marked on any reproduction hereof, in whole or in part. These limitations shall automatically terminate when this information is disclosed by the owner without restriction."

- 5.5 In regard to the dissemination and use of proprietary information received in confidence under this Agreement, the parties agree that:
- (i) Such information may be disseminated by the receiving party to persons within the receiving party, and to:

- (a) concerned authorities in the territory represented by the receiving party;
- (t) prime or subcontractors or consultants of the receiving wrty located within the geographical limits of the receiving party's territory;

for use only within the framework of their contracts or licenses with the receiving party in work relating to the IPIRG program, and provided that any proprietary information so disseminated shall be pursuant to an agreement of confidentiality and shall be marked with a restrictive legend substantially similar to that appearing in Article 5.4 above.

- (ii) With the prior written consent of the party providing proprietary information under this Agreement, the receiving party may disseminate such proprietary information more widely than otherwise permitted in the foregoing Article 5.5(i). The parties shall cooperate with each other 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.
- 5.6 Each party shall exercise its best efforts to ensure that proprietary information received by it under this Agreement is controlled as provided herein. If 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 Article, it shall immediately inform the other party. The parties shall thereafter consult to define an appropriate course of action.

- 5.7 Nondocumentary proprietary information provided in seminars and other meetings organized under this Agreement, or information arising from the assignments of staff, use of facilities or joint projects shall be treated by the parties in accordance with the principles specified in this Article, provided, however, that the party communicating such proprietary information places the recipient on notice as to the character of the information communicated.
- 5.8 Nothing contained in this Agreement shall preclude the use or dissemination of information received by a party from sources outside of this Agreement.
- 5.9 Information given by one party to the other under this Agreement shall be accurate to the best knowledge and belief of the party giving it, but 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 6 - DISPUTES

Any dispute between Battelle, the USNRC, or the participant concerning the application or interpretation of this Agreement that is not settled

through consu'tation shall be submitted to the Director, Office of Nuclear Regulatory Research, USNRC for determination. This provision does not preclude a party from instituting proceedings in a court of competent jurisdiction if the party determines that the Director, Office of Nuclear Regulatory Research's decision is arbitrary and capricious.

ARTICLE 7 - PATENIS

- 7.1 With respect to inventions or discoveries conceived or first actually reduced to practice in the implementation of this Agreement:
- 7.1.1 If conceived or first actually reduced to practice by personnel of a party (the Assigning Party) or its contractors while assigned to the other party (the Recipient Party) or its contractors in connection with the implementation of the IPIRG program:
- 7.1.1.1 The Recipient Party shall acquire all right, title and interest in and to such invention or discovery, and any patent application or patent that may result, in it own territory and in third countries; and
- 7.1.1.2 The Assigning Party shall acquire all right, title and interest in and to such invention, discovery, patent application or patent in its own territory.

- 7.1.2 If conceived by or first actually reduced to practice by a party or its contractors as a direct result of employing information which has been communicated to it under this Agreement by another party or parties and their contractors collaborating in the IPIRG program:
- 7.1.2.1 The party so conceiving or first actually reducing to practice such invention or discovery shall acquire all right, title and interest in and to such invention or discovery, and any patent application or patent that may result, in its own territory and in third countries; and
- 7.1.2.2 The other party or parties from whom the information was communicated shall acquire all right, title and interest in and to such invention, discovery, patent application or patent in their own territories.
- 7.1.3 Notwithstanding the allocation of rights covered under paragraphs 7.1.1 and 7.1.2, in any case where one party first actually reduces to practice after the execution of this Agreement an invention, either conceived by the other party prior to the execution of this Agreement or conceived by the other party outside of the cooperative activities implementing this Agreement, then the parties shall provide for an appropriate distribution of rights, taking into account existing laws and commitments with third parties; provided, however, that each party shall determine the rights to such invention in its own territory.

- 7.1.4 It is further agreed that the party acquiring all right, title and interest in and to such invention or discovery under this article in its own territory and third countries, shall grant to any other signatory party participating in the IPING program, upon its request, an irrevocable non-exclusive, royalty-free license to practice such invention or discovery in its own territory and on facilities and components of its manufacture that are located in other countries for use in the production or utilization of special nuclear material or atomic energy. Each participant receiving such a license may also have, upon request, the right to grant nonexclusive sublicenses to practice such invention or discovery in participant's own territory and on facilities and components of any sublicensee's manufacture that are located in other countries for use in the production or utilization of special nuclear material or atomic energy.
- 7.2 With respect to any invention or discovery conceived or first actually reduced to practice by personnel of the U.S. Government, Battelle, or their contractors in the course of or under the implementation of the IPIRG program, the USNRC shall acquire all right, title and interest in and to such invention or discovery, and any patent application or patent that may result therefrom in all countries, subject to the granting to each participant in the IPIRG program, upon its request, an irrevocable, nonexclusive, royalty-free license to practice such invention or discovery in its own territory and on facilities and components of its manufacture that are located in other countries for use in the production or utilization of special nuclear material or atomic energy. Each participant receiving such a

license may also have, upon request, the right to grant nonexclusive sublicenses to practice such invention or discovery in participant's own territory and on facilities and components of any sublicensee's manufacture that are located in other countries for use in the production or utilization of special nuclear material or atomic energy.

- 7.3 The party owning a patent covering any invention referred to in paragraphs 7.1 and 7.2 above shall license the patent to nationals or licensees of the other party, upon request of the other party, on nondiscriminatory terms and conditions under similar circumstances. At the time of such a request, the other party will be informed of all licenses already granted under such patent.
- 7.4 Each party shall take all necessary steps to provide the cooperation from its inventors required to carry out the provisions of this Article. Each party shall assume the responsibility to pay awards or compensation required to be paid to its employees according to its laws.

ARTICLE 8 - RESPONSIBILITY

In view of the research and developmental nature of the work hereunder, Battelle's responsibility shall be limited to applying its best efforts in the performance of such work by competent staff within the limits of time and funds set forth above. Accordingly, it is agreed that:

- (a) BATTELLE PROVIDES NO WARRANTY OR GUARANTEE WHATSOEVER
 INCLUDING WARRANTIES OF FITNESS FOR PURPOSE OR OF
 MERCHANIABILITY for any item or research result,
 including any resulting inventions, which may be
 delivered under this Agreement.
- (b) Neither AIT, its representative CONAA, nor Battelle, nor the USNRC, nor any other party collaborating in the IPIRG program:

Makes any warranty, expressed or implied, or assumes any liability with respect to the accuracy, completeness or usefulness of the information which results from the implementation of the study;

Assumes any liability with respect to the use of any information, instruction, design, apparatus, methods or process disclosed or applied in the implementation of the project.

ARTICLE 9 - TERMINATION

AIT may withdraw from the present Agreement after providing USNRC written notice of withdrawal at least six months prior to the anniversary date of the Agreement.

ARTICLE 10 - MUDIFICATION AND INTEGRATION

No modification to this Agreement shall be valid unless written and signed by an authorized representative of AIT and the USNEC. This Agreement contains the entire understanding between the parties and there are no understandings not set forth or incorporated by reference herein.

ENTRY INTO FORCE

This Agreement shall enter into force upon signature by both parties, and shall remain in force so long as the USNRC IPIRG program continues or until terminated.

U.S. NUCLEAR REGULATORY CUMMISSION

AMERICAN INSTITUTE IN TAIWAN

Executive Director for

Operations

DATE: March 23, 1987

PLACE: Bethesda, MD, USA

TITLE:

David N.

Chairman of the Board and Managing Director

DATE: April 23, 1987

PLACE: Arlington, VA USA