

IMPLEMENTING AGREEMENT
UNDER THE ARRANGEMENT BETWEEN
THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE
IN THE UNITED STATES
AND
THE AMERICAN INSTITUTE IN TAIWAN
FOR THE EXCHANGE OF TECHNICAL INFORMATION
AND COOPERATION IN NUCLEAR SAFETY MATTERS
RELATING TO
PARTICIPATION IN
THE USNRC COOPERATIVE SEVERE ACCIDENT RESEARCH PROGRAM

The Taipei Economic and Cultural Representative Office in the United States (hereinafter referred to as "TECRO") and the American Institute in Taiwan (hereinafter referred to as "AIT");

Considering that TECRO and AIT (hereinafter individually referred to as a "Party" and collectively referred to as the "Parties") and their designated representatives, the Nuclear Safety Commission of Taiwan (hereinafter referred to as the "NSC") for TECRO and the United States Nuclear Regulatory Commission (hereinafter referred to as "NRC") for AIT:

1. Have a mutual interest in cooperation in the field of nuclear safety research with the objective of improving the safety of nuclear reactors internationally;
2. Recognize a need to share equitably both the resources resulting from this research and the effort required to develop those resources; and
3. Desire to cooperate in implementation of the Arrangement Between the Taipei Economic and Cultural Representative Office in the United States and the American Institute in Taiwan for the Exchange of Technical Information and Cooperation in Nuclear Safety Matters, signed at Arlington and Washington on May 10 and 14, 2021 (the Arrangement), and any successor arrangement that enters into force during the term of this Implementing Agreement.

Have AGREED as follows:

ARTICLE I - PROGRAM COOPERATION

The Parties, in accordance with the provisions of this Implementing Agreement and subject to applicable laws and regulations in force in the respective territories of the authorities they

represent, agree to join together, through their designated representatives, for cooperative research in severe accidents sponsored by the Parties, through their designated representatives. Cooperation under this Implementing Agreement shall be subject to and governed by the Arrangement, or any successor to the Arrangement that comes into force during the term of this Implementing Agreement, and in the event of any conflict between the provisions of this Implementing Agreement and the Arrangement, or such successor to the Arrangement, the Arrangement, or such successor to the Arrangement, shall prevail.

ARTICLE II - FORMS OF COOPERATION

Cooperation between the Parties, through their designated representatives, 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, through their designated representatives, decide.
- B. Temporary assignment of personnel of one Party's designated representative or of that designated representative's contractors to laboratories or facilities owned by the other Party's designated representative or in which either 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, through their designated representatives.
- D. Use by one Party, through its designated representative, of facilities that are owned by the other Party's designated representative or in which research is being sponsored by the other Party's designated representative. Use of these facilities may be subject to commercial terms and conditions.
- E. Visits or assignment of personnel, or use of the facilities owned or operated by entities other than the Parties or their designated representatives. The Parties recognize that prior approval by such entities shall in general be required regarding terms upon which such visit, assignment, or use should be made.
- F. Any other form coordinated between the Parties, through their designated representatives.

ARTICLE III - SCOPE OF IMPLEMENTING AGREEMENT

A. Program Objectives

- 1. 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 shall be followed, and code configuration control shall be maintained. Standard programming language shall be applied, and code portability shall be maintained.
- 2. Share user experience on code scaling, applicability, and uncertainty studies.

3. Share a well-documented code assessment database.
4. Share experience on full-scale power plant safety-related analyses performed using the code. This includes analyses of operating reactors, decommissioning reactors, spent fuel pools, small modular reactors, advanced non-light-water reactor designs, transients, risk-dominant severe accident sequences, and accident management and operator procedures-related studies.
5. Maintain and improve user expertise and document user guidelines for applying the code.
6. Maintain good membership status. Members in good standing (invoices paid) may receive code updates, new code versions and invitations to upcoming Cooperative Severe Accident Research Program (CSARP) meetings.

B. AIT Scope of Responsibility

Subject to the availability of appropriated funds, AIT, through its designated representative, shall provide over the duration of this Implementing Agreement the following specified goods and services:

1. AIT, through its designated representative, shall provide to TECRO, through its designated representative, 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.
2. *Codes and Documentation:* AIT, through its designated representative, shall provide to TECRO, through its designated representative, codes listed in Appendix A and associated documentation. If applicable, code updates shall be supplied by AIT, through its designated representative, during the agreement period and shall be available on machine-readable media, and code configuration control shall be maintained to provide an internationally recognized version of each code.
3. *Code Support:* AIT, through its designated representative, shall provide to TECRO, through its designated representative, the ability to submit code-related questions to AIT, through its designated representative, via list serve email groups for the particular code and receive answers in a timely manner. AIT, through its designated representative, also shall accommodate reasonable requests for assistance from TECRO, through its designated representative, for support in their implementation and use.
4. AIT, through its designated representative, shall grant permission for personnel sponsored by TECRO's designated representative to participate in technical program review and progress meetings except for those meetings concerned with administrative and fiscal matters.

C. TECRO Scope of Responsibility

1. *Monetary Contribution for Code Maintenance and Improvements.* TECRO shall transmit to AIT \$50,000 on an annual basis for the duration of this Implementing Agreement, totaling five payments, beginning in 2024.
2. *Technical In-Kind Contribution.* TECRO, through its designated representative, shall employ its best efforts to perform severe accident research complementary to the program objective of AIT's designated representative to address nuclear safety concerns and issues. TECRO, through its designated representative, may submit to AIT, through its designated representative, recommendations for updates, modifications, and corrections to the codes supplied by AIT through its designated representative and related documentation sufficient to enable an evaluation to be made by AIT through its designated representative. Examples of products include, but are not limited to, items described in Appendix B, copies of reports, technical memoranda, and notes that are derived from TECRO's designated representative's analyses using codes and data obtained from AIT's designated representative's program. AIT, through its designated representative, shall have the nonexclusive right to publish these reports containing nonproprietary information as NUREG/IA reports with proper reference to the originating Party. AIT through its designated representative, shall have timely access to the results of TECRO's designated representative's safety research corresponding to those technical areas that constitute the scope of this cooperation.

ARTICLE IV - ADMINISTRATION

- A. The Parties, through their designated representatives, shall each designate one Administrator to coordinate and determine the detailed implementation of this cooperation. These Administrators may, at their discretion, delegate this responsibility to the appropriate technical staff with respect to a given issue. The single individual shall be referred to as the Administrator of this Implementing Agreement. With the exception of notice of intent to terminate this Implementing Agreement, notices required under this Implementing Agreement shall be addressed to the Administrators and transmitted through the Parties.
- B. The Parties, through their designated representatives, shall endeavor to select technical personnel for assignment in the program who can contribute positively to the program. Technical personnel assigned to the program shall be considered visiting scientists (non-salaried) within the program and shall participate in the conduct of the analyses and experiments of the program as mutually agreed.
- C. Each Party, through their designated representatives, shall have access to all non-proprietary reports that derive from participation in this Implementing Agreement and are written by the technical personnel of the other Party's designated representative.
- D. Administrative details concerning questions such as security, indemnity, and liability related to the assignees or trainees shall be addressed in personnel assignment agreements between the Parties.
- E. Travel costs, living expenses, and salaries of visiting technical personnel or personnel participating in program review meetings shall be borne by the Party through its designated representative that incurs them, unless specified otherwise in writing.

ARTICLE V - EXCHANGE AND USE OF INFORMATION AND INTELLECTUAL PROPERTY

A. General

The Parties, through their designated representatives, support the widest possible dissemination of information provided, created or exchanged under this Implementing Agreement, subject to the requirements of the laws, regulations and policies applicable in the territories of the authorities the Parties respectively represent, and the need to protect proprietary and other confidential and privileged information, and subject to the Arrangement, or any successor to the Arrangement that comes into force during the term of this Implementing Agreement, including the Intellectual Property Rights Annex to the Arrangement (the "Intellectual Property Rights Annex").

B. Definitions and Procedures

The Parties acknowledge that the definitions, document marking procedures, information dissemination restrictions, notification requirements, and information identification procedures contained in the Arrangement, or any successor to the Arrangement that comes into force during the term of this Implementing Agreement, as well as the Intellectual Property Rights Annex, are incorporated in this Implementing Agreement, and the Parties, through their designated representatives as appropriate, shall abide by those terms.

ARTICLE VI - OTHER CONSIDERATIONS

- A. Nothing contained in this Implementing Agreement shall preclude a Party, through its designated representative as appropriate, from using or disseminating information received without restriction from sources outside of this Implementing Agreement.
- B. All AIT's designated representative's computer codes disseminated under this Implementing Agreement shall be considered "privileged information," as defined by Article III(B) of the Arrangement, unless otherwise noted, and shall be protected as such by the Parties, through their designated representatives as appropriate. Such computer codes shall, in particular, be subject to all the provisions of Article III of the Arrangement prior to dissemination. The codes shall be subject to this protection in both object and source forms and as recorded in any media.
- C. For any organization approved by TECRO, through its designated representative, to use AIT's designated representative's computer codes, a nondisclosure agreement shall be completed and signed, and include a list of the individual[s] using the codes and provided to AIT, through its designated representative. Requests shall be in writing and approved at the sole discretion of AIT, through its designated representative.
- D. Among the code uses that shall be permitted under this Implementing Agreement are those related to research in the safety of nuclear power plants and analyses performed by CSARP members or their contractors that can assist regulators and plant personnel in assessing the safety of the plant. Examples of permitted analyses include design basis accidents and progression of severe accidents and their consequences, assessment of severe accident management guidelines and emergency operating procedures, analyses to support probabilistic risk assessment success criteria, power uprates, and reload.

- E. AIT's designated representative's codes and other related analytical techniques covered under this Implementing Agreement, and any improvements, modifications, or updates to such codes or techniques, are for the purpose of reactor and plant systems safety research and licensing and shall not be used for commercial purposes in the U.S. market, unless by a U.S. subsidiary of an approved CSARP participant, or for other benefits not related to the study of reactor safety without the prior consent of AIT, through its designated representative.
- F. Prohibited uses of AIT's designated representative's codes include (1) commercial use to develop a new reactor design, (2) use in the U.S. market, and (3) undisclosed uses in furtherance of the military of the territory represented by TECRO.
- G. AIT's designated representative's codes 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 Parties or their designated representatives have endorsed any particular analyses or techniques.
- H. All reports published within the scope of this Implementing Agreement and all meetings held shall be in English.

ARTICLE VII - DISPUTES AND WARRANTY OF INFORMATION

- A. All costs arising from this Implementing Agreement shall be borne by the Party, through its designated representative, that incurs them except when specifically decided otherwise. The activities under this Implementing Agreement are subject to the availability of funds. The terms herein agreed to represent feasible commitments according to the best understanding regarding resources and costs of the Parties at the time of signature.
- B. Cooperation under this Implementing Agreement shall be in accordance with the applicable laws and regulations of the respective territories the Parties represent. Any dispute or questions between the Parties concerning the interpretation or application of the Implementing Agreement shall be settled through consultation.
- C. The Parties, through their designated representatives as appropriate, agree that information furnished under this Implementing Agreement shall be accurate to the best knowledge and belief of the Party or designated representative supplying the information. However, the Parties, through their designated representatives as appropriate, shall be responsible for the application or use of any information received under this Implementing Agreement. The Parties, through their designated representatives as appropriate, acknowledge that the Party or designated representative supplying the information does not warrant the suitability of the information for any particular use or application.
- D. AIT, through its designated representative as appropriate, does not make any warranties whatsoever for the ability or suitability of its 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, through its designated representative as appropriate, does not accept any liability for damages of any type that may result from the use of its

codes or other analytical techniques provided under this Implementing Agreement.

ARTICLE VIII - FINAL PROVISIONS

- A. This Implementing Agreement shall enter into force upon the later signature of the Parties, and it shall remain in force until January 30, 2029, provided that the Arrangement, or any successor thereto, is in force. If the Arrangement, or any successor thereto, is no longer in force, activities under this Implementing Agreement shall be suspended, unless resumed by mutual decision. This Implementing Agreement shall supersede the Implementing Agreement under the Arrangement between the Taipei Economic and Cultural Representative Office in the United States and the American Institute in Taiwan for the Exchange of Technical Information and Cooperation in Nuclear Regulatory and Safety Matters relating to Participation in the USNRC Cooperative Severe Accident Research Program, done at Washington on January 30, 2017, as extended.
- B. If the terms of the Arrangement are at any time amended, and those amended terms conflict with the terms of this Implementing Agreement, the terms of the Arrangement shall prevail.
- C. This Implementing Agreement may be extended for an additional period upon mutual agreement of the Parties, provided that the Arrangement remains in force. Should this Implementing Agreement expire, or be suspended or terminated, the Parties, through their designated representatives as appropriate, shall continue to adhere to the terms of the Intellectual Property Rights Annex to the Arrangement as it applies to information and intellectual property exchanged or used pursuant to this Implementing Agreement.
- D. The Parties, through their designated representatives, have the right to utilize information provided under this Implementing Agreement after its termination; however, all information protected by provisions of this Implementing Agreement as proprietary, confidential, privileged, or otherwise subject to restriction on disclosure shall, to the extent permitted by applicable laws and regulations, remain so protected indefinitely unless mutually decided by the Parties.
- E. A Party may terminate this Implementing Agreement by providing the other Party written notice of its intent to terminate at least 180 days in advance. The Party not terminating shall notify the terminating Party before the effective date of termination if termination would result in the terminating Party receiving a disproportionate share of the expected benefit from this Implementing Agreement. Both Parties shall endeavor to reach an equitable settlement of the matter through negotiation.
- F. The Parties to this Implementing Agreement reserve the right to modify or extend the specific activities described in Article III within the intended scope of the Implementing Agreement through the written concurrence of their Administrators.
- G. If the portion of the research program of any Party that is pertinent to this Implementing 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.

Done in duplicate in English.

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

Robin Cheng

NAME: Robin Cheng

TITLE: Deputy Representative

DATE: 01/19/2024

PLACE: Washington, D. C.

FOR THE AMERICAN INSTITUTE IN
TAIWAN:

Ingrid D. Larson

NAME: Ingrid D. Larson

TITLE: Managing Director

DATE: 1/12/2024

PLACE: Arlington, VA

APPENDIX A

Description of Activities (Updated CSARP codes may be shared as they become available)

AIT DESIGNATED REPRESENTATIVE SEVERE ACCIDENT RESEARCH PROGRAM AREAS

- **Integrated Severe Accident and Accident Consequence Codes**
 - MELCOR
 - MELCOR plug-in for SNAP
 - MACCS (MELCOR Accident Consequence Code System)
 - MelMACCS
 - WinMACCS
 - AniMACCS
- **Technical Meetings and Workshops**
 - CSARP annual technical review meeting
 - MELCOR Cooperative Assessment Program (MCAP) meeting
 - MELCOR code workshop
 - International MACCS User Group (IMUG)
 - MACCS code Workshop
 - Asian MELCOR User Group (AMUG)
- **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 MELCOR input decks and in running the code. SNAP and the MELCOR plug-in shall be provided. Subsequent updates of SNAP and associated documentation that are released during the Implementing Agreement period shall also be provided.

APPENDIX B

TECRO DESIGNATED REPRESENTATIVE SEVERE ACCIDENT RESEARCH PROGRAM AREAS

- **Severe Accident and Accident Consequence Codes**
 - Improved MELCOR analytical models
 - Verification and validation of MELCOR models
 - Improved MACCS analytical models
 - Verification and validation of MACCS models
- **Severe Accident Code Experience**
 - Experiences from analyzing nuclear power plants in Taiwan
 - Severe Accident management analysis