

TECHNICAL EXCHANGE AND COOPERATION ARRANGEMENT  
BETWEEN  
THE UNITED STATES NUCLEAR REGULATORY COMMISSION  
AND  
THE UNITED KINGDOM HEALTH AND SAFETY EXECUTIVE  
IN THE  
FIELD OF REACTOR SAFETY RESEARCH AND DEVELOPMENT

The Parties:

Considering that the United States Nuclear Regulatory Commission (USNRC) and the United Kingdom Health and Safety Executive (UKHSE);

- (a) have a mutual interest in cooperation in the field of nuclear reactor safety research with the objective of improving and thus ensuring the safety of nuclear reactors on an international basis;
- (b) take note of previously exchanged research and development information in the field of nuclear safety under the Arrangement of August 3, 1977, between the USNRC and the United Kingdom Atomic Energy Authority, and the Arrangement of April 4, 1995, between the USNRC and the United Kingdom Health and Safety Executive in the Field of Reactor Safety Research and Development, as amended and extended;
- (c) are presently cooperating under a technical exchange and cooperation Arrangement and have indicated their mutual wish to continue the cooperation in nuclear safety research and development established by that Arrangement.

HEREBY AGREE AS FOLLOWS:

ARTICLE 1 - OBJECTIVE

The USNRC and the UKHSE, in accordance with the provisions of this Arrangement and subject to applicable laws and regulations in force in their respective countries, will continue the cooperation established between them in the field of nuclear safety research and development on the basis of mutual benefit and reasonable equality and reciprocity.

## ARTICLE 2 - FORMS OF COOPERATION

Cooperation between the Parties may take the following forms:

- 2.1 The exchange of information in the form of technical reports, experimental data, computer codes, correspondence, newsletters, visits, joint experts meetings, and such other means as the Parties, or their designated representatives, agree.
- 2.2 The organization of meetings on specific agreed topics; such meetings normally to be held alternately in the U.S. and the UK for each topic.
- 2.3 Visits by specialist teams or individuals to the facilities of the other Party or to facilities in which the Party is sponsoring research.
- 2.4 Possible 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 such assignment will be considered on a case-by-case basis and generally be the subject of a separate attachment of staff agreement between the Parties.
- 2.5 The execution of joint programs and cooperative research projects, including those involving a division of activities between the Parties, including the use of test facilities and/or computer programs sponsored by either Party, will be agreed on a case-by-case basis and may be the subject of a separate agreement between the Parties, if determined to be necessary by the research organizations of one or both of the Parties. Other times it will be accomplished by an exchange of letters between the research organizations of the Parties, subject at least to the terms and conditions of the present agreement.
- 2.6 The use by one Party of facilities which are owned by the other Party or in which research is being sponsored by the other Party; such use of facilities will be the subject of separate arrangements between the Parties and may be subject to commercial terms and conditions.
- 2.7 If either Party wishes to visit, assign personnel or use the facilities owned or operated by entities other than the Parties to this Arrangement, such entities must give their prior written approval to the terms upon which such visit, assignment or use will be made.
- 2.8 Any other form agreed between the Parties.

## ARTICLE 3 - SCOPE OF INFORMATION EXCHANGE

- 3.1 The USNRC will make available to the UKHSE, or its designated representative, information in the field of nuclear reactor safety research and development which it has the right to disclose, either in its possession or available to it, in the technical areas (listed in Appendix A) in which the USNRC is performing nuclear safety research.
- 3.2 The UKHSE, or its designated representative, will make available to the USNRC information in the field of nuclear safety research and development which it has the right to disclose, either in its possession or available to it, in the technical areas (listed in Appendix B) in which the UKHSE, or its designated representative, is performing nuclear safety research.
- 3.3 Each Party will promptly transmit and call to the other Party's attention any information on its research results appearing to have significant safety implications.

- 3.4 The Parties may also exchange information on any other topic related to nuclear reactor safety by mutual agreement.

#### ARTICLE 4 - ADMINISTRATION OF THE ARRANGEMENT

Each Party will designate as Administrator a senior representative to coordinate its participation in the overall exchange. On an annual basis, the Administrators, or their designated representatives, will meet to review the status of exchange and cooperation provided for by this Arrangement, to recommend revisions for improving and developing the cooperation, and to discuss topics within the scope of the cooperation. The time, place and agenda for such meetings will be agreed upon in advance.

#### ARTICLE 5 - EXCHANGE AND USE OF INFORMATION AND INTELLECTUAL PROPERTY

##### 5.1 General

The Parties support the widest possible dissemination of information provided or exchanged under this Arrangement, 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 Arrangement.

##### 5.2 Definitions (As used in this Arrangement)

5.2.1 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 Arrangement.

5.2.2 The term "proprietary information" means information created or made available under this Arrangement 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) 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.

5.2.3 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 country of the Party providing the information and which has been transmitted and received in confidence.

### 5.3 Marking Procedures for Documentary Proprietary Information

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

"This document contains proprietary information furnished in confidence under an Arrangement dated \_\_\_\_\_ between the United States Nuclear Regulatory Commission and the United Kingdom Health and Safety Executive and will not be disseminated outside these organizations, their consultants, contractors, and licensees, and concerned departments and agencies of the Government of the United States and the Government of the United Kingdom 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 Arrangement without the consent of the transmitting Party.

### 5.4 Dissemination of Documentary Proprietary Information

5.4.1 In general, proprietary information received under this Arrangement may be freely disseminated by the receiving Party without prior consent to persons within or employed by the receiving Party, and to concerned Government departments and Government agencies in the country of the receiving Party.

5.4.2 In addition, proprietary information may be disseminated without prior consent

- a. to contractors or consultants of the receiving Party located within the geographical limits of that Party's nation, 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 5.4.2.b., above, for use only in work within the scope of the permit or license granted to such organizations;

Provided that any dissemination of proprietary information under 5.4.2.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 5.3 above.

5.4.3 With the prior written consent of the Party furnishing proprietary information under this Arrangement, the receiving Party may disseminate such proprietary information more widely than otherwise permitted in subsections 5.4.1 and 5.4.2. 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 national policies, regulations, and laws.

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

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

5.5.1 that the information is protected from public disclosure by the Government of the transmitting Party; and

5.5.2 that the information is transmitted under the condition that it be maintained in confidence.

5.6 Dissemination of Other Confidential or Privileged Information of a Documentary Nature

Other confidential or privileged information may be disseminated in the same manner as that set forth in paragraph 5.4, Dissemination of Documentary Proprietary Information.

5.7 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 Arrangement, or information arising from the attachments of staff, use of facilities, or joint projects, will be treated by the Parties according to the principles specified for documentary information in this Arrangement; provided, however, that the Party communicating such proprietary or other confidential or privileged information has placed the recipient on notice as to the character of the information communicated.

5.8 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 Arrangement, it will immediately inform the other Party. The Parties will thereafter consult to define an appropriate course of action.

5.9 Other

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

5.9.2 All USNRC computer codes disseminated under this Arrangement are to be considered privileged information unless otherwise noted, are protected as such by the USNRC, and will be treated likewise by the UKHSE. They are, in particular, subject to all the provisions of this Article including the requirements for an agreement of confidentiality (paragraph 5.4) prior to dissemination, 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.

5.9.3 The USNRC codes and other related analytical techniques covered under this Arrangement 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 will not be used for commercial purposes, or for other benefits not related to the study of reactor safety without the prior consent of the USNRC.

Among the code uses that will be permitted under this Arrangement are those related to research in the reactor safety area and analyses performed by the Parties 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, analysis 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 U.S. unless performed by a U.S. subsidiary.

5.9.4 The USNRC codes and other related analytical techniques will not be advertised directly or by implication to obtain contracts related to the construction or servicing of nuclear facilities, nor will advertising imply that the USNRC has endorsed any particular analyses or techniques.

## ARTICLE 6 - COSTS

Except when otherwise specifically agreed upon by the Parties, all costs arising in the implementation of this Arrangement will be borne by the Party that incurs them. It is understood that the ability of the Parties to carry out their obligations is subject to the appropriation of funds by the appropriate governmental authority and to the laws and regulations applicable to the Parties.

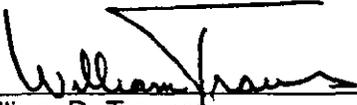
## ARTICLE 7 - DISCLAIMER

Information given by one Party to the other under this Arrangement will 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 will 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 8 - FINAL PROVISIONS

- 8.1 This Arrangement will enter into force upon the last date of signature, and, subject to paragraph 8.2, will remain in force for a period of five years, unless extended for a further period of time by agreement of the Parties.
- 8.2 Either Party may withdraw from the present Arrangement after providing the other Party written notice six months prior to its intended date of withdrawal.
- 8.3 All information protected by provisions of this Arrangement as proprietary, confidential, privileged, or otherwise subject to restriction on disclosure will remain so protected indefinitely, unless and until the removal of such restriction is agreed to by the Parties in writing.
- 8.4 Any dispute or questions between the Parties concerning the interpretation or application of this Arrangement arising during its term will be settled by mutual agreement of the Parties.

FOR THE UNITED STATES NUCLEAR  
REGULATORY COMMISSION:

BY:   
William D. Travers

TITLE: Executive Director  
for Operations

DATE: May 25, 2000

PLACE: \_\_\_\_\_

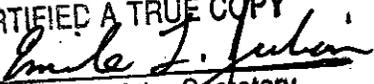
FOR THE UNITED KINGDOM HEALTH  
AND SAFETY EXECUTIVE:

BY: 

TITLE: Director, Nuclear Safety Directorate

DATE: 26 June 2000

PLACE: \_\_\_\_\_

CERTIFIED A TRUE COPY  
BY   
Office of the Secretary

## APPENDIX A

### REACTOR SAFETY RESEARCH AREAS IN WHICH THE USNRC IS CURRENTLY PERFORMING OR SPONSORING RESEARCH

- Reactor Vessel and Piping Integrity
- Aging of Reactor Components
- Reactor Equipment Qualification
- Thermal Hydraulic Code Application and Maintenance
- Plant Performance
- Human Performance
- Core Melt and Reactor Coolant System Failure
- Reactor Containment Safety
- Containment Structural Integrity
- Seismic Safety
- Probabilistic Risk Assessment
- Severe Accident Analysis
- Radiation Protection and Health Effects
- Radionuclide Transport and Waste Management
- Nuclear Fuel Analysis

## APPENDIX B

### REACTOR SAFETY RESEARCH AREAS IN WHICH THE UKHSE IS CURRENTLY PERFORMING SAFETY RESEARCH

- 1a. Plant Life Management - steel components
- 1b. Plant Life Management - civil engineering
2. Chemical Processes
3. Fuel and Core
4. Fission Products
5. Reactor Physics, Criticality and Shielding
6. Heat Transfer and thermal Hydraulics
7. Severe Accidents
8. External Events
9. Control and Instrumentation
10. Human Factors
11. Probabilistic Safety Assessment
12. Radiological Protection
13. Waste and Decommissioning
14. Nuclear Systems and Equipment
15. Graphite

## INTELLECTUAL PROPERTY ANNEX

Pursuant to Article 5 of this Technical Exchange Arrangement:

The Parties shall take such steps as are in its control to adequately and effectively protect the intellectual property created or furnished under this Arrangement and relevant implementing arrangements. The Parties agree to notify one another in a timely fashion of any inventions or copyrighted works arising under this Arrangement and to 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 Arrangement, except as otherwise specifically agreed by the Parties or their designees.
- B. For purposes of this Arrangement, "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 the Parties. Each party shall take such steps as are in its control to ensure that the other Party can obtain rights to intellectual property allocated in accordance with the Annex. This Annex does not otherwise alter or prejudice the allocation between a Party and its nationals, which shall be determined by that Party's laws and practices.
- D. Disputes concerning intellectual property arising under this Arrangement should be resolved through discussions between the concerned participating institutions or, if necessary, the Parties. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL) shall govern.
- E. Termination or expiration of this Arrangement shall not affect rights or obligations under this Addendum.

## II. ALLOCATION OF RIGHTS

- A. Each Party shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to reproduce, and publicly distribute and translate scientific and technical journal articles, reports, and books directly arising from cooperation under this Arrangement. 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. Each Party shall have the right to review a translation prior to public distribution.
- 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 treatment as a national of the host country with regard to awards, bonuses, benefits, or any other rewards, in accordance with the policies of the host institution.
  2. (a) For intellectual property created during joint research, the Parties shall jointly develop a technology management plan. The technology management plan shall consider the relative contributions of the Parties and their cooperative entities, the benefits of licensing by territory or for fields of use, requirements imposed by the Parties' domestic laws, and other factors deemed appropriate. The initial research cooperation arrangement may include the technology management plan for that specific cooperation.  
  
(b) If the Parties cannot reach agreement on a joint technology management plan within a reasonable time not to exceed six months from the time a Party becomes aware of the creation of the intellectual property in question, the Parties or cooperative entities shall resolve the matter in accordance with the provisions of paragraph I(D). Pending resolution of the matter, such intellectual property shall be owned jointly by the Parties or their cooperative entities, but shall be commercially exploited (including product development) only by mutual agreement.  
  
(c) A specific program of research will be regarded as joint research for purposes of this Annex when it is designated as such in the relevant implementing arrangement. Otherwise the allocation of rights to intellectual property will be in accordance with paragraph II(B)(1).  
  
(d) In the event that either Party believes that a particular joint research project under this Agreement will lead to the creation or furnishing of intellectual property of a type not protected by the applicable laws of one of the Parties, the Parties shall immediately hold discussions to determine the allocation of the rights to the said intellectual property; the joint activities in question will be suspended during the discussions unless otherwise agreed by the parties thereto.