

No. 16282

**UNITED STATES OF AMERICA
and
DENMARK**

Arrangement between the United States Nuclear Regulatory Commission (USNRC) and the Danish Atomic Energy Commission (DAEC) for exchange of technical information in regulatory and safety research matters and co-operation in development of safety standards (with patent addendum and appendices). Signed at Copenhagen on 3 October 1975

Authentic text: English.

Registered by the United States of America on 27 January 1978.

**ÉTATS-UNIS D'AMÉRIQUE
et
DANEMARK**

Arrangement entre la Commission de réglementation nucléaire des États-Unis (USNRC) et la Commission de l'énergie atomique du Danemark (DAEC) portant sur l'échange de renseignements techniques dans les domaines de la réglementation et de la recherche en matière de sûreté et sur la coopération pour l'élaboration de normes de sûreté nucléaires (avec additif relatif aux brevets et appendices). Signé à Copenhague le 3 octobre 1975

Texte authentique : anglais.

Enregistré par les États-Unis d'Amérique le 27 janvier 1978.

ARRANGEMENT¹ BETWEEN THE UNITED STATES NUCLEAR REGULATORY COMMISSION (USNRC) AND THE DANISH ATOMIC ENERGY COMMISSION (DAEC) FOR EXCHANGE OF TECHNICAL INFORMATION IN REGULATORY AND SAFETY RESEARCH MATTERS AND COOPERATION IN DEVELOPMENT OF SAFETY STANDARDS

The United States Nuclear Regulatory Commission (hereinafter called “the USNRC”) and the Danish Atomic Energy Commission (“DAEC”) considering the desirability of a continuing exchange of information pertaining to regulatory and safety research matters and cooperation in safety research and in development of standards of the type required or recommended by these parties for the regulation of safety and environmental impact of nuclear facilities conclude the following cooperation arrangement:

I. SCOPE OF THE AGREEMENT

I-1. TECHNICAL INFORMATION EXCHANGE

The USNRC and the DAEC agree to exchange the following types of technical information related to the regulation of safety and environmental impact of designated nuclear energy facilities, and to safety research of designated types of nuclear facilities:

- (a) Topical reports concerned with technical safety and environmental effects written by or for the parties as a basis for, or in support of, regulatory decisions and policies;
- (b) Significant licensing actions and safety and environmental decisions affecting these facilities;
- (c) Detailed documents on regulatory procedures, decisions, and other actions of the USNRC affecting U.S. facilities and actions of DAEC affecting Danish facilities;
- (d) Information in the field of reactor safety research which the parties have the right to disclose, either in the possession of one of the parties or available to it, including light water safety information from the technical areas described in appendices A and B. Each party will transmit immediately to the other urgent information concerning research results, indicating significant safety implications;
- (e) Reports on operating experience, such as reports on incidents, accidents and shutdowns, and compilations of operating experience and historical reliability data, on components and systems;
- (f) Regulatory procedures for safety, nuclear materials protection, and environmental impact evaluation of these nuclear facilities.
- (g) Each party will make special efforts to give early advice to the other of important events, such as serious operating incidents and government-directed reactor shutdowns, that are of immediate interest to the other.

I-2. COOPERATION IN SAFETY RESEARCH

The execution of joint programs and projects of safety research and development, or those programs and projects under which activities are divided between the

¹ Came into force on 3 October 1975 by signature, in accordance with its provisions.

two parties including the use of test facilities and/or computer programs owned by either party, will be agreed upon on a case-by-case basis. Temporary assignments of personnel by one party in the other party's agency will also be considered on a case-by-case basis.

I-3. COLLABORATION IN DEVELOPMENT OF REGULATORY STANDARDS

The USNRC and the DAEC further agree to cooperate in the development of regulatory standards for these nuclear facilities.

(a) Each party will inform the other of specific subjects on which regulatory standards development work is underway, or is planned, and approximate schedules for moving work forward on those subjects.

(b) As is practicable, agreement will be reached from time to time on the standards which each party will take the lead in developing, in order to avoid unnecessary duplication of effort. These would normally relate to standards that could serve both countries.

(c) Copies of regulatory standards required to be used, or proposed for use, by the regulatory organizations of the respective countries will be made available by each party on a timely basis.

II. ADMINISTRATION

(a) The exchange of information under this agreement will be accomplished through letters, reports, and other documents, and by visits and meetings arranged in advance on a case-by-case basis. A meeting will be held annually, or at such other times as mutually agreed, to review the exchange activity, to recommend revisions, and to discuss topics coming within the scope of the exchange. The time, place, and agenda for such meetings shall be agreed upon in advance. Visits which take place under the agreement, including their schedules, shall have the prior approval of the administrators.

(b) An administrator will be designated by each party to coordinate its participation in the overall exchange. The administrators shall be the recipients of all documents transmitted under the exchange, including copies of all letters unless otherwise agreed. Within the terms of the exchange, the administrators shall be the main contact points for developing the scope of the exchange, including agreement on the designation of the nuclear energy facilities subject to the exchange, on specific documents and standards to be exchanged, and on standards work to be coordinated. One or more technical coordinators may be appointed as direct contacts for specific disciplinary areas. These technical coordinators will assure that both administrators receive copies of all transmittals. These detailed arrangements are intended to assure, among other things, that a reasonably balanced exchange giving access to equivalent available information is achieved and maintained.

(c) Once each year, each of the administrators will send a letter to his counterpart listing the titles of all the documents that have been transmitted under this exchange program during the preceding year.

(d) The administrators shall determine the number of copies to be provided of the documents exchanged. Each document will be accompanied by an abstract, less than 250 words, describing its scope and content.

(e) In general, information received by each party to the arrangement may be disseminated freely without further permission of the other party.

Privileged information, including information supplied by the sending party in confidence and on condition that the receiving party protect the information from unauthorized disclosure, will be clearly identified by the sending party with special

stamps or other bold lettering. The receiving party will refrain from disseminating, without approval of the sending party, such confidential or privileged information:

- (i) on the U.S. side, outside the USNRC and consultants and assisting agencies of the Federal Government;
- (ii) on the Danish side, outside the concerned authorities of the DAEC and their consultants and assisting agencies.

(f) Information exchanged under this agreement shall be subject to the patent provisions in the patent addendum of this document.

(g) Nothing contained in this agreement will require either party to do anything which would be inconsistent with its laws and regulations. Should any concern arise about a possible conflict between the terms of this arrangement and those laws and regulations, the parties will consult regarding the basis of the concern.

(h) This arrangement shall have a term of five years and may be further extended by mutual written agreement. It may be terminated by either party upon thirty-day notice.

(i) The application or use of any information exchanged or transferred between the parties under this agreement shall be the responsibility of the party receiving it, and the transmitting party does not warrant the suitability of such information for any particular use or application.

(j) Recognizing that some information of the type covered in this arrangement is not available within the agencies which are parties to this arrangement, but is available from other agencies of the governments of the parties, each party will assist the other to the maximum extent possible by organizing visits and directing inquiries concerning such information to appropriate agencies of the government concerned. The foregoing shall not constitute a commitment of other agencies to furnish such information or to receive such visitors.

DONE at Copenhagen on October 3, 1975. This arrangement is effective on the date of signature.

HANS V. BÜLOW

On behalf of the Danish
Atomic Energy Commission

LEE V. GOSSICK

On behalf of the U.S.
Nuclear Regulatory Commission

PATENT ADDENDUM

A. With respect to any invention or discovery made or conceived during the period of, or in the course of or under, this exchange of technical information in regulatory safety research matters and cooperation in development of safety standards between the U.S. Nuclear Regulatory Commission and the Danish Atomic Energy Commission, if made or conceived while in attendance at meetings or when employing information which has been communicated under this exchange arrangement by one party or its contractors to the other party or its contractors, the Party (Inventor Party) making the invention shall acquire all right, title and interest in and to any such invention, discovery, patent application or patent in its own and third countries, subject to the grant to the other Party (Recipient Party) of a royalty-free, non-exclusive, irrevocable license, with the right to grant sublicenses, in and to any such invention, discovery, patent application, or patent, in such countries, for use in the production or utilization of special nuclear material or atomic energy, and the Re-

ipient Party shall acquire all right, title and interest in such invention, patent, etc., in its own country, subject to the grant of a corresponding license to the Inventor Party.

B. Each party shall assume the responsibility to pay awards or compensation required to be paid to its own nationals according to its own laws.

APPENDIX A

USNRC-DAEC REACTOR SAFETY RESEARCH EXCHANGE AREAS IN WHICH THE NRC IS PERFORMING LWR SAFETY RESEARCH

1. Primary coolant system rupture studies.
2. Heavy section steel technology program.
3. LOFT program.
4. Power burst facility — subassembly testing program.
5. Separate effects testing — loss of coolant accident studies.
6. Loss of coolant accident analyses — analytical model development.
7. Design criteria for piping, pumps, and valves.
8. Alternate ECCS studies.
9. Core meltdown studies.
10. Fission product release and transport studies.
11. Probabilistic studies.
12. Zirconium damage.
13. All computer codes applicable to the above at whatever stage of development they may be.*
14. Data from all experiments applicable to the above.*

APPENDIX B

USNRC-DAEC REACTOR SAFETY RESEARCH EXCHANGE AREAS IN WHICH THE DAEC IS PERFORMING SAFETY RESEARCH

1. Loss-of-coolant accident analysis.
 - (a) Blowdown
 - (b) Emergency core cooling.
2. Containment analysis (thermo hydraulic).
3. Reliability analysis.
4. Structural mechanics (stress analyses and fracture mechanics).
5. Probabilistic fracture mechanics — on pressure vessels and canning.
6. Prestressed concrete pressure vessels.
7. Clad oxidation and deformation studies.
8. Fuel rod stored heat and fission gas release studies.
9. Fission product release, stack release monitoring.
10. Radioactive waste treatment and disposal.
11. Dispersion models for air, water, and soil (also global and regional dispersion).
12. Radioecology.

* Data and computer codes will be "as is" at the time of the request. NRC or contractor manpower will generally not be available for interpretation of uncompleted work.